The Mts. Sicker and Brenton Mines

Limited

NON-PERSONAL LIABILITY

Prospectus

VICTORIA, B.C.
THE COLONIST PRINTING & PUBLISHING CO.
1901

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THE MTS. SICKER AND BRENTON MINES, LIMITED

(NON-PERSONAL LIABILITY)

Incorporated and Registered Under the Companies Acts of the Province of British Columbia.

CAPITAL $1,000,000.00,

DIVIDED INTO 4,000,000 SHARES OF 25 CENTS EACH.

'SSUE OF 1,250,000 NON-ASSESSABLE SHARES OF TREASURY STOCK

All other shares are pooled (see later.)

PRESIDENT:

(To be hereafter elected by the Board.)

VICE-PRESIDENT:

PETER J. PEARSON.

BOARD OF DIRECTORS:

W. A. DIER, Victoria, British Columbia, formerly Managing Director and Vice-President of The Winchester Gold Mines Co. (now Fairview Corporation), and formerly Managing Director of Fairview Corporation.

ALFRED ST. GEORGE HAMERSLEY, Vancouver, British Columbia, Barrister-at-Law.

E. E. SMITH, Syracuse, N. Y. State, U. S. of America, Druggist.

ELMORE D. DIER, of Victoria, B. C., Accountant.

T. D. CONWAY, Chemainus, B. C., B. C. Customs.

PETER J. PEARSON, Chemainus, B. C., Mine Owner.

MANAGING DIRECTOR:

WILLIAM ALFRED DIER, Victoria, B. C.

SUPERINTENDENT OF MINING OPERATION:

PETER J. PEARSON.

CONSULTING ENGINEERS AND METALLURGISTS:

PELLEW-HARVEY, BRYANT & GILMAN, Victoria and Vancouver, B. C.

BANKERS:

BANK OF B[illegible]ISH NORTH AMERICA, Victoria, B. C.

TREASURER AND SECRETARY:

LEWIS G. HILL, Chemainus, B. C.

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PROSPECTUS.

This Company has been formed to acquire, develop and work certain copper-gold and silver mineral claims situate on Mounts Sicker and Brenton, in the Victoria Mining Division, on the Island of Vancouver, British Columbia; and the claims are known and registered under the names of the Susan, the Copper Canyon, the Victoria, and two fractions (the Copper Canyon Group), the Yankee and the Anoka, the May and the Star. These mineral properties and claims have been acquired by the Company with the confident expectation that their working and development will prove a profitable commercial enterprise.

The mining industry in British Columbia has in the past few years made gigantic strides, and has long since passed the stage of speculation. It now engages more serious attention in the Province than Industrial and Manufacturing enterprises, and the attraction exercised by the industry has brought into the Province for investment an enormous amount of capital, the greater part of which is being profitably employed.

The result of the industry cannot be fully ascertained from official returns, which show only the minerals brought to market, but from the published reports of the British Columbia Minister of Mines in 1899 (the latest issued) the total production up to the year 1899 has been from all minerals

$135,773,881.00.

There has been a steady increase in production, culminating in the year 1899 in a production of Minerals of the value of

$12,356,555.00.

During the more recent years the attention of mining enterprise has been directed to the immense riches the Province throughout its at present explored area possesses in copper. Up to 1899 the production is given as

$2,747,294.00,

Whilst in 1899 alone the Province produced in fine copper the very [illegible]ctable quantity of

7,722,591 lbs.

It is unnecessary to do more than perhaps direct attention to such world-wide known enterprises as the Slocan mines, the gold-copper mines at Rossland, and those in the Boundary District, the War Eagle, the Le Roi, the Ymir, etc., etc.

On the Coast of British Columbia and the hardly separated Island of Vancouver the same mineral riches abound. The opportunities for their profitable production compare favorably with the districts in the interior of the Mainland, in consequence of the greater accessibility, economical means of transportation, proximity of coal, coke and smelting necessities, and in addition, and the chief advantage, claimed particularly for the mining properties acquired by this Company, THE HIGHER GRADE AND UNIFORM CHARACTER OF THE ORE, AND THE CONSIDERABLE PERCENTAGE OF GOLD AND SILVER. Besides these advantages there are claimed the superior climatic conditions, the abundant timber supply, and the availability of a copious water supply for all possible purposes.

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That these general advantages attending the pursuit of the mining industry in Vancouver Island are clearly appreciated by miners is to be gathered from the following Tabulated Statement, showing the number of persons engaged, the properties operated, and the active operations throughout the four mining divisions of Vancouver Island, taken from the published reports of the Minister of Mines for the Province, 1896 to 1899 :

EXTRACTED FROM MINISTER OF MINES REPORTS FOR YEARS 1896-1900.

Mining Division.	Free Miners Certificates.					Mining Claims Recorded.					Certificates of Work.				
	1896	1897	1898	1899	1900	1896	1897	1898	1899	1900	1896	1897	1898	1899	1900
Victoria	690	1204	1212	1540	774	342	772	392	259	158	60	67	195	197	289
Nanaimo		710	381	412	346	....	1057	500	193	207		287	475	572	414
Alberni			289	125	106	....	..	414	195	124	....		294	241	193
West Coast			28	105	105			106	153	86			64	274	157
Totals	690	1914	1810	2182	1331	342	1829	1478	1100	575	60	354	1028	1287	973
			ANNUAL			TOTAL....		5324			ANNUAL				

To induce appreciation of the advantages possessed by the mining properties and claims acquired by this Company (presupposing for the moment the existence of the mineral riches) the situation of the properties must be concisely explained, and will be readily followed by reference to the maps accompanying this prospectus.

On the Straits of Georgia, within ten hours' sail of Tacoma (the presently existing smelting point), lies the Port of Chemainus, situated on the east coast of the Island. Chemainus is the headquarters of the largest operating lumber concern in the Province (the Victoria Lumber & Manufacturing Company, owned by American capitalists; and, flowing into the harbour there, is the Chemainus River, a very important stream, taking its rise in the mountainous district some thirty miles inland, and running through the bulk of the properties of this Company. The river at all times contains a flow of water more than sufficient for all the mining industries of the neighborhood. The estimate is 30,000 inches, and the Company, it may here be said, have taken steps to obtain powers to use 700 inches. The torrent has in places swept bare the rock surface and disclosed the hidden riches. Mr. P. J. Pearson, the proposed Mining Superintendent of the Company's operations, some years back (with a claim to be one of the pioneers in this region) made, with others, exhaustive prospect of the indications disclosed and of the rock in the proximity, and as a result the Copper Canyon Group was located and has been steadily prospected, with the most encouraging results.

The neighbouring Lenora mine owes its origin to the acumen and enterprise of Mr. Henry Croft, a mining engineer of great experience : Under his able management the Lenora mine (in which property he is largely interested as part owner) has attained a success the extent of which can be gathered from a perusal of the extracts from Government Reports and the other printed matter accompanying this prospectus. Mr. Croft has no connection with this Company, although he, perhaps, as part owner of a neighbouring enterprise, might be looked upon in the light of a rival. With a desire to obtain an absolutely impartial report, the Company employed him to inspect and report upon their properties. This report is as follows :

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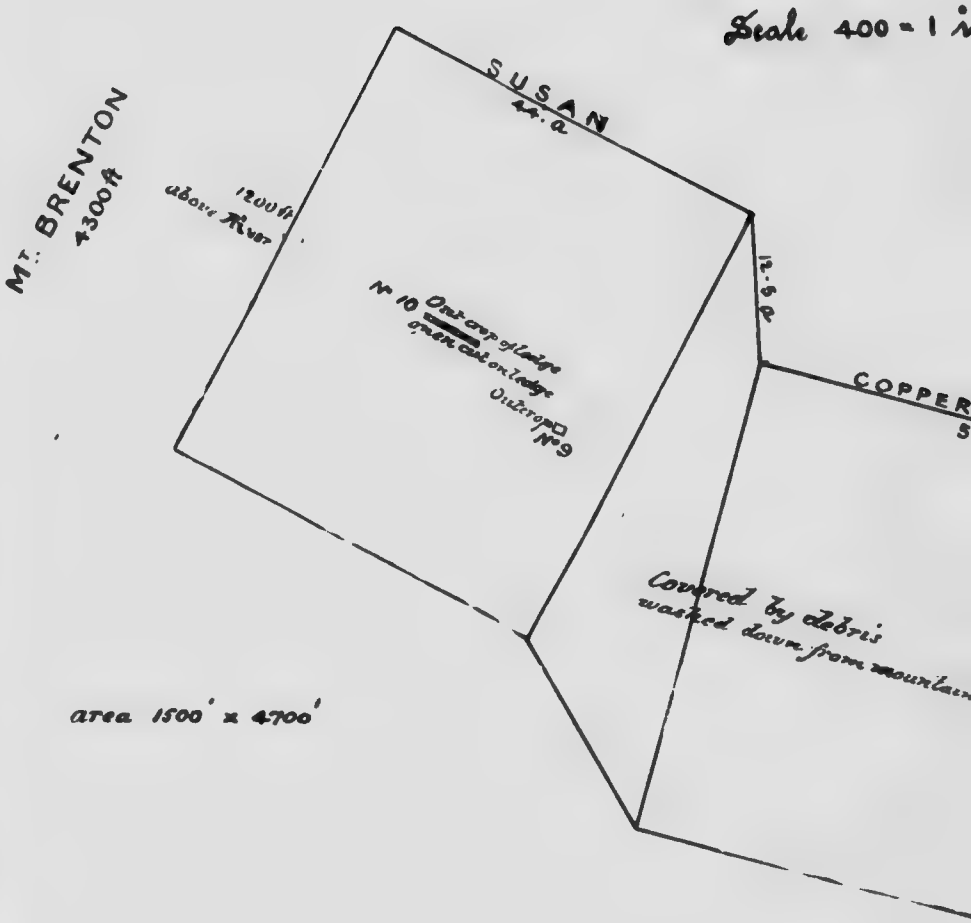

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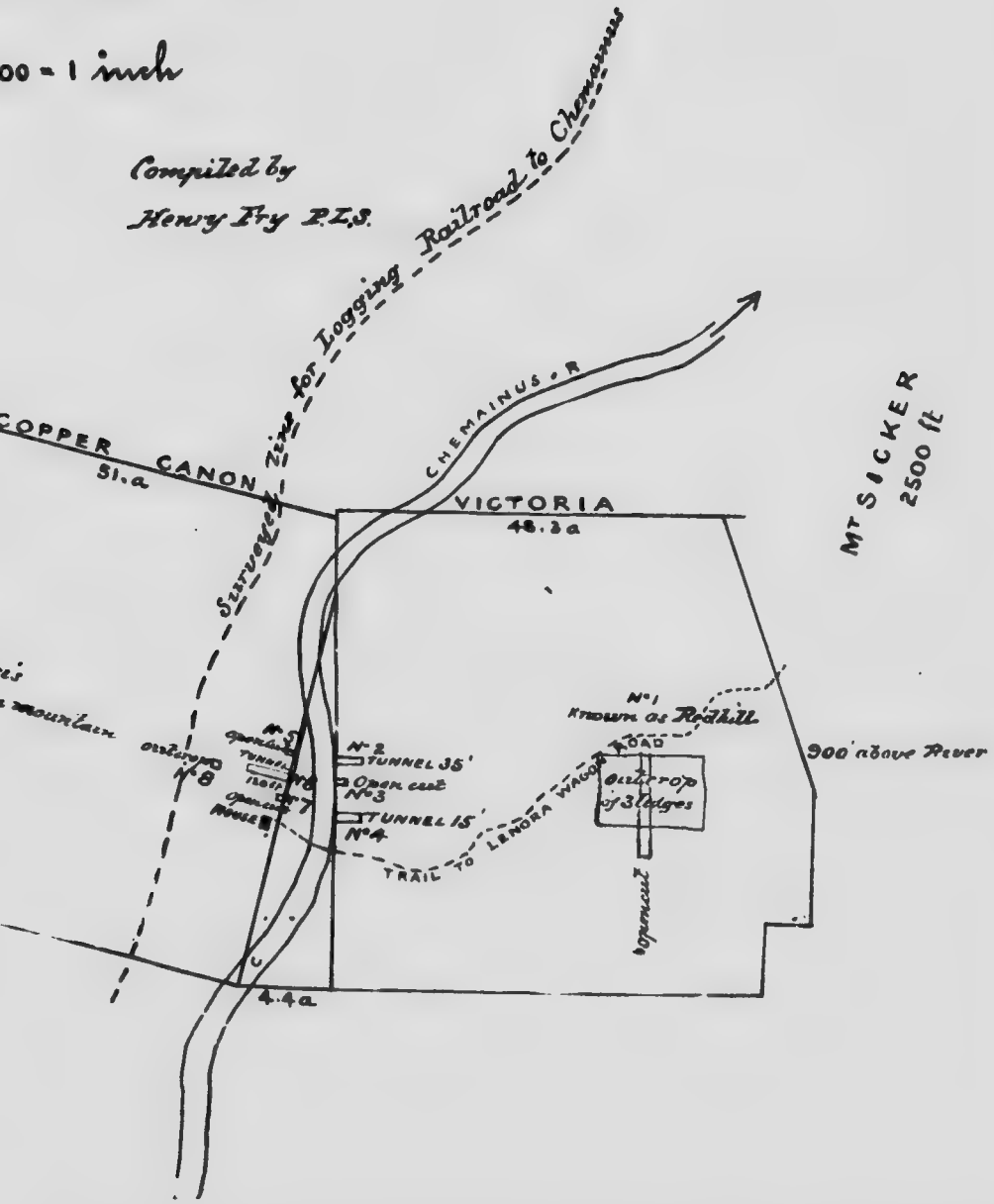


REPORT OF H. CROFT, M. A. I. M. E.

Situation.—The Copper Canyon group of mineral claims are situated on the western slope of Mount Sicker, Vancouver Island, and the southeastern slope of Mount Brenton, in the valley of the Chemainus river.

The group consists of three claims and two fractions—

	Acres.
The Susan, containing.....	44
The Copper Canyon, containing	54
The Victoria, containing.....	48.3
Two Fractions, containing....	.4
	12.5
	160.2

At the present time the claims are reached by wagon road from Westholme, a station on the Esquimalt & Nanaimo Railway, 40 miles from Victoria; also by the Lenora-Mount Sicker Railway (3 feet gauge), which at the present time is completed from the Lenora mine to Westholme, and will be extended to Osborne Bay, on the east coast of Vancouver Island, this Summer. Already the line is graded for this extension of 5 1-4 miles, except about 400 yards. Osborne Bay is a first-class harbor, well protected from storms, and an ideal site for a smelter, a reservoir being now constructed at an altitude above salt water of 350 feet, and with an area of about 50 acres will afford ample water supply.

The Copper Canyon Group is situated about 2,000 feet from the railway and waggon road. The railway is about 1,000 feet above the Chemainus River, which flows through the property. There is every reason to believe that a standard gauge logging railway will be constructed up the valley of the Chemainus River and through the property within two years.

Veins.—At the present time there are three parallel veins, the distance between the outside walls being about 142 feet. It may be that these three apparent veins are only one vein, as no great amount of development work has been done on them. The Chemainus River cuts through the formation, exposing the same through a depth of about 40 feet in the canyon (see sketch). Vein A, on the right bank of river, and on the Mount Sicker side.—An open cut has been driven in for a distance of 12 feet; this open cut shows mineral, white iron with chalcopyrite; this vein shows on the left bank of the river. Vein B.—On this vein and on the left bank of the river a tunnel has been driven for a distance of 100 feet, with an open cut 20 feet long at the entrance to tunnel; at the end of tunnel a shaft has been sunk to a depth of 30 feet. In this tunnel there is a strong streak of mineral, white iron and chalcopyrite; the streak of these veins is about 30 per cent. south of west magnetic. Vein B shows on the right bank of the river, and a small cut has been made. Vein C has been opened up on the right bank of the river by a tunnel 30 feet long, with a shaft 6 feet deep at the end of the tunnel; white iron and chalcopyrite show heavily in a quartz stringer; this stringer is about 18 inches in width. This vein crosses to the left bank of the river, and an open cut has been driven in it.

Without actually tracing the formation to the Lenora and Tyee claims, I would state that there is every indication, by taking into consideration the direction of the strike of the Lenora lead with the strike of the Victoria lead, that the veins are the same; at a distance easterly from the above work of about 1,000 feet, two shafts have been sunk, each about six feet deep, on two veins of exactly the same formation as those on the river. The vein matter consists of quartz, carrying white iron, which, I am confident, will turn into copper with depth. On the Susan also a similar vein has been found, with identically the same iron capping as exists on the Lenora.

The workings on the Victoria claim are about 500 feet above the river; and the workings on the Susan, which consist of stripping, are about the same height above the Chemainus river.

It may be discovered when proper development work has been done that the schistose matter, which is mainly silicious impregnated with calcite, and often having the structure and appearance of steatite, and which contains the mineral called Veins A, B and C, is one vein. If this is so, it will be the same formation as exists on the Lenora mine.

Geology.—The mineral zone on Mount Sicker apparently exists in the schist belt which runs nearly east and west, and is of a width of about 1 1-2 miles; to the south of the belt slate exists, whilst to the north, black shales and conglomerate appear; dykes of altered diorite appear in the schist, frequently overflowing the schist.

The schist formation appears to be very regular, with a dip to the north of about 80 per cent. From present indications on the Lenora mine, there is every reason to believe that the ore bodies continue and improve with depth.

Mining work can be done on Mount Sicker for about one-third the cost paid by mining companies in the Interior; miners are paid $3 per day, and board costs men 75 cents per day; muckers are paid $2.25 per day and $2.50 per day. Japanese are largely employed for outside work, receiving $1.25 per day for heavy work, and 90 cents per day for sorting ore.

Tunnels 5x7 feet can be driven by hand in the schist for about $4.25 per running foot. Provisions and supplies are much cheaper than in the interior of British Columbia. The proximity of Mount Sicker to the coast allows the ore to be shipped to the

smelters at a moderate cost, as railway companies cannot control the freight rates on ore and supplies.

Water Power.—The Chemainus River affords plenty of water power, the present volume of water being about 35 feet by 18 inches, with a current of about six miles an hour, ample fall can be secured for running machinery. This power can be secured at the present workings.

Timber.—The claims have plenty of timber suitable for mining, and the surface of the country is covered with dense forest, except where it has been destroyed by fire.

Climate.—The climate is exceptionally good; winters are mild, with small snowfall, and entirely different from the extreme cold weather that occurs on the Mainland of British Columbia and in Eastern Canada. Outside work can be carried on during the entire season.

Development Work.—I have no hesitation in saying that this group has every indication of making, with proper development, a large and important shipping mine; it has every advantage for economical working; water power, railway in the immediate vicinity. Ore shipments could, by means of wire rope, run by water power, be made within thirty days of deciding to ship; wood and water in abundance; tunnel sites in soft schist rock.

I would strongly advise, in the first instance, a tunnel being run into Mount Sicker, following one of the ore bodies; and afterwards, say when tunnel is in 200 or 300 feet, crosscut the formation and prove the position of the other two parallel ore bodies. These near the surface are composed of quartz with white iron, but already it has been proved on this property that in a distance of only 30 feet, copper ore takes the place largely of white iron.

Lenora.—It may interest you to know that the Lenora mine shipped, to March 23, 1901—

Tons.	Smelter Returns.
11,867	$175,832.42

—and is at the present time shipping about 70 tons per day; this will be increased to 100 tons per day. It is estimated that above the level of the upper tunnel there are about 55,000 tons of first-class ore. Ore is being now shipped from the lower tunnel, showing that between the upper and lower tunnels large ore bodies exist. A new ore tunnel 1,300 feet has been started; this will run on the ore.

Conclusion.—I have no hesitation in stating that I consider the Copper Canyon Group to be a property well worthy of developing, and of the investment of capital for such a purpose.

(Sgd.) HENRY CROFT,

Associate Member Institute Civil Engineers
Member Institute of Mechanical Engineers
Member Federated Institute Mining Engineers
M. S. Staffordshire and E. Worcestershire Inst. of Mining E.
} Of England.

Victoria, B. C., May 9, 1901.

Dealing with the other mining claims, Mr. Pearson states that "his investi-
"gations induced him about four years since to locate claims which he named
"the Anoka Group, consisting of the Anoka, May and Star. These are situated
"on the southwest side of the adjoining Mount Brenton, on a creek which had
"cut down into the schist formation about 200 feet, exposing some excellent
"copper ore, carrying some values in gold and silver. The ore, after four years'
"working, has been found to be continuous and from the same formation and
"of the same nature and quality as the copper ore found in the neighboring
"Lenora and Tyee mines, in a direct westerly line with which mines the Anoka
"lies. The mineral belt has been traced for some twenty miles westerly from
"Mount Sicker, and, whenever exposed or worked, has been found to be similar.
"The Star and the May lie about three-fourths of a mile up the Anoka Creek,
"on the contact between porphyry and schist. The creek has also cut into the
"formation here some forty or fifty feet, exposing a ledge about eighteen inches,
"carrying a larger percentage in silver and gold and less in copper. The ledge
"shows on both sides of the creek.

"A tunnel was driven on the east side of the creek for about forty or fifty
"feet, and it proved the ledge to be continuous. Fair samples have also been
"taken and assays made.

The accompanying map shows the country to have been staked for a mile or more west of the Anoka, and work has been done showing more or less ore. The Anoka claim appears to have three distinct ledges. A tunnel into the ledge has been made, and some ten or twelve tons of ore have been taken out, of which samples have been taken and assays made.

Other prospecting has resulted in the showing of equally good leads. The Crown grants to the Anoka, May and Star will be obtainable after another year's assessment work.

As to the Yankey claim, about $300 has been spent upon prospecting and doing the assessment work, and the results are considered encouraging.

For further reports on properties see Reports 1 and 2 hereafter.

The accompanying map also shows the existing railway used by the Lumber Company, which is of standard gauge. The Directors are assured that the proposal and intent of the Lumber Company is to continue this line within the next four months, and it will in the near future run through the Copper Canyon property. In addition to this assured facility, the report of Mr. Croft shows that immediate facilities exist for connecting at slight cost by wire rope haulage with the Lenora & Mount Sicker Railway, over which railway ore is being daily transported. The plan also shows the relative positions of the Company's properties to the Lenora and Tyee mines. It was in part upon the belief in the continuation of the ledges into the Copper Canyon properties that the original locators made their locations, and the works heretofore done have been with a view to verify this assumption, and it may be stated that all subsequent developments tend to confirm the original locators' belief. The mining work heretofore done has been confined to certain known and exposed ledges; upon the properties there are in addition indications of the existence of large quantities of payable ore, which will receive early attention when the Company's funds enable them to undertake operations on the proper scale.

The continuity of the ore bodies from the neighbouring Lenora and Tyee mines having been to a great extent established, it is desirable to direct attention to the history and present value of these mines, and in the accompanying printed matter sufficient data will be found to justify the determination to launch this enterprise, and to justify the Directors' estimate and assurance that the properties acquired, when more fully developed, will prove a sound commercial and profitable undertaking. Before entering upon the proposals of the Directors for the continuation of the development and working of the minerals, the following statements are given, from current report, as indicative of the reasonableness of such estimates and assurances :

Capital invested in neighbouring mines.

The Tyee have spent of their working capital in development work	$115,000
The Lenora have spent in development and construction works	150,000
The Mount Sicker & B. C. Dev. Co. have spent...	15,000
The Mount Sicker & Vancouver Co. have spent..	15,000
The Key City Copper Co. have spent.....	10,000
The Daisy Dev. Syndicate have spent.....	3,000
The Copper Canyon Group.....	3,500

Tyee ore.

The Tyee have large quantities of ore blocked preparatory to shipment, and are still increasing this.

Lenora shippings.

The Lenora has actually sent to smelter ore of the value of $175,832.42, and is shipping about 70 tons daily.

Grade of Lenora ore.

The grade of the Lenora ore averages: Copper, $14.50; gold and silver, $5.50—a total of $20 per ton.

The assays of ore taken from this Company's properties are as follows:

Assays.

The following assays have been made by Pellew-Harvey, Bryant & Gilman of ores from the Company's properties

ASSAYS MADE IN 1898 FROM SURFACE ORES, COPPER CANYON GROUP.

No.	Per Ton of 2,000 Lbs.		Value		Percentage.	Total Gross Value Per Ton	
	Ozs. Gold	Ozs. Silver.	Gold @ $20.00	Silver @ 60c	Copper (wet) @ 16¾ per lb		
1	Trace	None	..	....	1 75	$ 5 86	
2	Trace	Trace	..		2.35	7 87	
3	Trace	Trace	....		1.60	5 36	
4	.062	None	1.24		1.50	6 26	Copper Valued on Wet Assay.
5	.05	None	1.00	.	.70	3 34	
6	Trace	Trace	....	....	3.75	12 55	
7	Trace	Trace	....	..	8.25	27 60	
8	Trace	2.00	..	1 20	....	1 20	
9	Trace	.50	....	30	20.7	69 60	
10	.15	1.00	....	....	13.5	28 76	

ASSAYS MADE IN 1901, AFTER DEVELOPMENT WORK.

No	Per Ton of 2,000 Lbs.		Value.		Percentage.	Total Gross Value Per Ton.	
	Ozs. Gold.	Ozs. Silver.	Gold @ $20.00.	Silver @ 60c.	Copper (wet) @ 16¾ per lb.		
*1	.04	2.4	0.80	1.44	22.80	$74 24	
2	.08	3.6	1.60	2.16	17.15	56 86	
3	.08	3.52	1 60	2.12	17.70	58 72	Copper Valued on Dry Assay.
4	.52	10.68	10.40	6 40	19.30	77 10	
5	.24	4.76	4.60	2.85	12.60	45 45	
6	.025	3.20	0.50	1 92	19.10	62 02	
7	.04	3.4	0 80	2 04	10.80	34 64	

1901 ASSAYS.

*No. 1 From ledge in Anoka tunnel.
2 " 30 ft. tunnel on Victoria
3 " lower ledge on Anoka.
4 " shaft in 30 ft. tunnel on Victoria.
5 " samples taken in canyon and river.
6 " 100 ft. tunnel on Copper canyon.
7 " Susan.

AS TO THE COMPANY'S PROPERTIES.

Working of ore. The ore is easily worked.

Tunnelling. Tunnelling is easy.

Timber Timber is plentiful.

Water. The water supply is abundant.

The total cost, when the Lumber Company's railway is completed, of shipping to smelter at Tacoma is estimated at $1.75 per ton. **Cost of Shipping.**

Connection for transportation can be inexpensively made with the Lenora and Mount Sicker line of rails, and the cost will then be, for handling and shipping to smelter, $2.25 per ton. **Transportation.**

In the near future there will be a smelter in the immediate vicinity for treating Mount Sicker and other ores, even if this Company does not find it advantageous to erect its own. **Smelting facilities.**

The Company's properties cover an area approximately of 350 acres.

The Copper Canyon Group is Crown granted, and the surface rights have been purchased. The title to the lands and minerals is derived from Crown grant and conveyance from the Esquimalt & Nanaimo Railway Company, and there is reserved only the coal and coal oil and iron and ironstone, and full rights to enter and work the same, and to build a railroad and necessary works, if required, over and upon the lands. **Title.**

The vendor is advancing to the Company the moneys required to continue the working at present going on without interruption, pending the sale of treasury stock.

The programme of the Directors is as follows: **Programme.**

Employment of sufficient number of hands to push on all works in progress.

Thoroughly to develop the whole of the properties.

Erect more extensive buildings and miners' accommodation.

Construction of works for utilizing water supply; turbine for electric power and light production, and general use.

If deemed desirable, construct wire rope haulage to connect with Lenora & Mount Sicker Railway.

The proceeds of sale of Treasury Stock will provide all necessary moneys for development and construction works, and leave a surplus available for any future necessary works.

The estimates for arriving at probable results are as follows :

Mean and conservative average value from each ton of ore in copper, gold and silver : Copper yield, per ton, $14.50; gold-silver, $5.50—total, $20.00.

The accepted local average estimate of cost of production per ton is:—

Wages	$ 3 00
Shipping, including handling at both ends	2 75
Smelting, at $6.00 per ton	6 00
Total	$11 75

N.B.—These figures will be varied when a local smelter exists, reducing cost of handling and shipment 50 %.

Shewing a profit of $8.25 per ton. The Directors confidently anticipate that with active development they will ship at least 100 tons per day within a year from date.

The confident expectation, from the assays made, is that the average yield of $20 per ton in copper-gold and silver will be far exceeded.

The Company have, by their Articles of Association, taken power to declare interim dividends out of estimated profits, which estimate must, of course, be carefully made; and, after making a prudent reserve for depreciation and contingencies, there should, if expectations are realized, be no difficulty in the

Company reaching the dividend paying stage when the shipments reach the average total of 50 tons per pay day.

The vendor, Mr. W. A. Dier, is a gentleman with a very considerable business experience connected with the development under limited liability of mining enterprises, and shows his confidence in the present undertaking by accepting as purchase price for the properties, shares and no cash. He will assume, as Managing Director, the control of the undertaking. Mr. Peter J. Pearson will conduct the mining operations. The objects and powers of the Company will be found set out in the accompanying Memorandum of Association. The British Columbia Company Law is founded upon and nearly identical with the English Company Law, with the addition of carefully worded provision for the assurance of non liability of members, which in the case of this Company is additionally protected by the registration of the Vendor's Contract of Sale, showing the consideration to be the whole capital of the Company, of which he returns 1,250,000 shares into the treasury of the Company. The shares are, therefore, both fully paid and non-assessable.

The vendors, and in fact all shares, other than treasury stock, are by agreement pooled for one year, or until $100,000 in cash in treasury.

The only contract entered into by the Company is a contract for the purchase of the properties, dated the sixteenth day of May, 1901, and made between William Alfred Dier aforesaid, of the one part, and the Company, of the other part. The contract lies at the office of Messrs. Mason & Bradburn, barristers and solicitors, Victoria, B. C., where it may be inspected. Contracts will be entered into with Mr. W. A. Dier to act as Managing Director until April, 1903, and a similar contract with Mr. Pearson with regard to the superintendence of mining operations.

Accompanying this prospectus will be found:

1. Copy of report of W. Pellew-Harvey, F. C. S., M. I. M. M., the well known metallurgist and mining engineer, made on the Copper Canyon Group, 29th July, 1898.

2. Ditto of A. H. Bromley, M. I. Mech. E., dated 12th January, 1899.

3. A copy from published report of the Minister of Mines of British Columbia, 1897, pages 566 to 568.

4. A similar copy for the year 1898, from page 1147 to page 1149.

5. A similar copy for the ye 1899, from page 809.

6. Extracted copies from the 21st Annual Report of the British Columbia Board of Trade, 1900, pages 11 and 12, and 15 to 19.

7. Copy of letter from Harry Smith, the original locator of the Lenora and Tyee mines, dated May 13.

8. Sundry newspaper cuttings and photographs, with explanatory notes.

9. Maps of the District.

10. Map of Copper Canyon Group, showing the actual survey and workings.

11. Copy of the Memorandum of Association of the Company, showing the objects.

Report No. 1.

Vancouver, B. C., July 29, 1898.

COPPER CANYON GROUP.

Chemainus, Vancouver Island.

The claims comprise the Victoria, located on Mount Sicker, at the base of the same, southwest of two well-known copper properties, viz., the Tyee and Lenora; the Copper Canyon claim, an extension followed by the Susan, which runs further southwest, on the opposite slope of the valley on Mount Brenton. The Chemainus River flows through the valley towards the north, and in its course passes the present workings of both the Victoria and Copper Canyon claims.

Situation.—The mines alluded to are situated at an altitude of 600 feet (at the base) above salt water, at a distance of five miles south of the town of Chemainus, and are reached by several routes, all of which offer easy access at present; but the river valley would be entirely used, on account of the natural and easy gradiant of about 2 per cent. Chemainus is a small village on the banks of a lovely salt water harbour of that name, where vessels of all descriptions can load or discharge cargo. At the present moment many call for lumber, which is the main industry of the place, the supplies for the mill being, as far as future demands are concerned, available only at a point further southwest than the copper mines, and for this reason it is anticipated that a tramway service will be inaugurated to draw the logs; in such an event this service would be of great value as a medium for the delivery of ore to smelters.

The Lodes.—For over a year considerable prospecting has been carried on on Mount Sicker and Mount Brenton, resulting in the discovery of a continuous band of mica schist, running almost parallel with a strong but broken capping of much decomposed iron ore, the strike of this series being N. E. and S. W.

At an altitude of 1,800 feet above sea level on Mount Sicker a little development opened up a strong copper lode on the Tyee claim; this, so far as proved by sinking, measures nine feet in thickness, with an assay value of 16 per cent. copper and some gold and silver. Further down the hillside other ground was broken and tunnels driven on the Lenora claim, and this, too, has shown a strong body of copper ore, the associating gangue being principally arsenical and iron pyrites. The Victoria, Copper Canyon and Susan claims have been located and prospected, the conditions and occurrences of the surface rock being identical with those of the Tyee and Lenora referred to. On the Victoria claim, at 900 feet from the river and on the east side of it, an open cut has been made into the iron capping. The width of this iron capping would be about 20 feet. On the same claim, by the river side, a tunnel has been driven for 33 feet, following a lead of copper and iron pyrites, and during the course of the work about 15 tons of excellent ore was taken out and saved on the dump, the assay from which went $28 per ton; but after driving 20 feet the ore chute dipped and became bedded. A sump of five feet was put down at the face of the tunnel to cut the vein, but so far it has not done so, although there is every probability that the ore will come in again. At other places cuts have been made showing varying quantities of mineralized rock.

On the Copper Canyon, west of the river, another tunnel has been driven for 96 feet southwest, coursing along a small lead on that side, and at the face an inclined shaft was put down 29 feet, following a 75-inch S. E. dip of a 16-inch ore body, but at 12 feet this ore ran out, although the walls are very well defined, but the vein was cut again at 24 feet, where it was two inches wide, with increased copper values. On the Susan there are outcroppings of iron pyrites, with the usual capping.

Ore Values.—The assays made so far have been taken from the ore in the tunnels, and for the sake of ascertaining the character of the products as compared with those of the Lenora, though these latter do not show so much value, the ore is of the same character, and with depth I am of opinion will prove similar.

Timber.—There is an abundance of very fine timber on the claim.

Water.—The Chemainus river offers an abundant supply for mining, drilling and other power.

Conclusion.—I have given a general outline of the condition of the claims, and other information which will enable one to form an opinion concerning necessary development. Having carefully examined the several claims, millsite, etc., mentioned, I conclude that the character of the ore generally is the same on the Victoria and Copper Canyon as on the Tyee and Lenora, preliminary work having demonstrated that the surface showings in one are similar to the other, and also that a good grade of copper ore exists in chutes on the claims. I think that a company prepared to undertake work on such a ground of reasoning would be very likely to meet with success. I would suggest the following development, so as to quickly cut such ore chutes as undoubtedly exist, viz: Sink a shaft on the Victoria to a 250-foot level, then crosscut for 75 feet in each direction. This would cost approximately $5,000. Such an expenditure would, I believe, lead to the acquisition and opening up of a valuable property.

W. PELLEW HARVEY.

Report No. 2. January 12th, 1899.

COPPER CANYON GROUP.

Chemainus, Vancouver Island, B. C.

Description.—The group comprises the following claims: "Victoria," "Copper Canyon" and

"Susan," with two fractions and a total area of 173 acres.

Locality.—These claims lie in a practically straight line upon a mineral zone having a strike N. E. by S. W., upon the flanks of Mount Sicker and Trenton, and across the valley of the Chemainus River. The centre of the group is about five miles from the harbour and town of Chemainus, upon the east coast of Vancouver Island, which town also has direct railway communication with Victoria. The course of the river when crossing the claim is approximately north and south, the claims lying inland and south of the township.

Topography.—The sides of the hill rise very steeply from the river, the workings at the Victoria and Copper Canyon being 600 feet, and the outcrop from the Susan about 900 feet above sea level. Assuming the distance to Chemainus by the river, allowing for windings, to be six miles, a fall of 600 feet corresponds to a grade of about 2 per cent, or 1 in 50.

It is found that a fairly uniform grade exists, and consequently a tram line is practicable without excessively heavy works; in fact it is understood that such line has been determined upon by the lumber interests at Chemainus, and same will also serve to bring down ore from the mines.

Access.—The present means of access, until the tramway be built, is by means of a wagon road passing within three fourths of a mile of the claims. This road was constructed by the owners of the neighboring mine, the Lenora, to take out trial shipments of ore and bring in supplies.

Country Rock.—The country rock is a belt of quartzose schists, having an average strike of N. 60 degrees E., tilted up at an angle of 80 degrees and dipping S. 1

Ore Deposits.—The ore occurs as bedded lintienlar veins, lying parallel and conformable with the enclosing schists, and occupying fissures and bulges in same. Therefore the strike and dip of the ore bodies and country rock correspond.

The lode matter consists of a quartz gangue, usually dark blue in color, carrying chalcopyrite (copper pyrites), and ordinary pyrites (fes), with some value in gold. They are thoroughly typical copper ores of their class, and not likely to present any difficulties in treatment by ordinary methods.

Work Done.—Victoria: An outcrop of silicious schist occurs and forms a bluff known as Red Hill, owing to the gossan resulting from the decomposition of the pyrites in several veins of ore forming an iron capping. An open cut has been put in across the formation, and three separate veins exposed. The work done is insufficient to permit of exact data being given, but the indications demonstrate the existence of ore.

At the river bank a drive has been run for 37 feet, with a shallow winze in face 5 feet deep. Strike of ore, N. 60 degrees E. (mag.); dip, 80 degrees S. E. The average variation of width of ore is from a few inches to 12 or 18 inches, and at places three feet width was found when driving. Some 15 tons of good quality ore are upon the dump, assaying 14 per cent. in copper ($28).

Certain small work along the bank shows other ore bodies, but nothing worth mention has been done to exploit these. The work is valuable as showing that a belt of about 150 feet in width forms a mineralized zone, and anywhere in that belt development will strike more or less ore.

Copper Canyon.—No. 1 Drive—Length, 100 feet, with chamber at end, from which a winze has been sunk some 20 feet in the south side. This has been put in on the side of a run of ore, varying in width and direction from 17 inches to less in width; strike, N. 55 degrees E.; dip, 80 degrees S. E. The winze has been sunk in a spot where the country is disordered and ore more or less thrown about, and it would have been better to have continued the drive ahead and crosscut the country, as apparently the bulk of the ore is thrown into the south wall of the drift. Samples of ore have assayed from 20 per cent. in copper ($40) down to 2 per cent. ($4). More exploitation is needed before the average size and value can be determined.

Small prospect works upon this side of the river also show other ore courses, but the previous remarks re the Victoria apply here also. The existence of a mineralized zone is demonstrated, but not exploited.

Susan.—The small prospect cuts show separate veins, samples assaying 9.64 per cent. of copper ($19.28), but practically no development work has been done.

Other Claims.—Upon the eastern extension of this belt lie several well known claims. The Lenora has been opened out by several hundred feet of driving, and over 5,000 tons of payable ore exposed thereby. This property is being actively exploited by a Glasgow company.

The Tyee has a good showing of ore, and has been floated in London for £50,000. Active work is about to be commenced upon same.

General.—The indications all through this belt are very encouraging, and in the light of the results attending the exploitation of the Lenora, the surface showings in the Copper Canyon Group are sufficiently good to warrant the expectation that similarly good results will attend systematic development.

(Sgd.) A. H. BROMLY,
M. I. Mech. E., etc.

Report No. 3.

VANCOUVER ISLAND.

Copy of the Published Report of the Minister of Mines for British Columbia, 1897, from Pages 566, 567 and 568.

During the past year a large amount of prospecting has been in progress at different points on the Island, more especially on the West Coast. Here the mountains contiguous to Barclay and Clayoquot Sounds and Sidney Inlet have been attracting much attention by the discovery of copper-bearing ore, upon some of which deposits considerable work is now in progress. A number of properties were sold in the proximity of Uchucklesit Harbour and Anderson Lake, where a company is beginning extensive explorations.

On the Sarita claims little or no work has been done during the past year. On China Creek work has ceased on the Duke of York placer claims, but prospecting is being done on the Cataract leases. Considerable work was done on the Alberni Consolidated quartz leads, and these claims have recently passed under the control of an English Company. During the year several lots of ore, aggregating 30 tons, were shipped out to be tested, that yielded values of $18.60 to $39 in gold per ton, or an average of 1.57 ounces per ton. It is now very likely that vigorous work will soon be begun. The Golden Eagle is also being developed, under the management of Mr. McQuillan.

MOUNT SICKER

This mountain lies south of the Chemainus river, and is reached by road and trail about six miles long from Westholme Station, on the E. & N. R., the trail crossing the summit at an elevation of 2,100 feet, and then dropping down to 1,650 feet, the elevation of the chief camp. A new line for a wagon road, with a steady grade, has been cut, so that it is now reported that this road, running from near Somenos, will make the distance four or five miles from the railroad up to the mines.

The mountain is well timbered, but the underbrush is not heavy, so that the prospector has comparatively easy access to the many rock exposures. On this mountain the rock formation consists mostly of the greenish eruptives found on this Island, part of which here, without a decisive investigation, has evidently been altered into a very schistose, greyish rock. There appear to be small areas or inliers of very highly metamorphosed sedimentary rocks as well, but it is inthese schists that the ore bodies are found. A description of the following claims will give some idea of the conditions prevailing here, which certainly are very favourable:

Lenora.—On this claim, on the west slope of Mount Sicker, the owners, H. Smith, H. Buzzard, et al., have uncovered a large body of copper-bearing material, or a heavily mineralized zone, in one place 30 to 40 feet wide, with the typical iron capping, where there is an open cut five feet wide in a hard, fine grained greenish rock, heavily impregnated with fine grained copper and iron pyrites. Here considerable solid sulphide ore is seen in this large exposure of gossany material, which has been traced farther up the hill to the Tyee claim, by shallow cuts, and down the mountain about 100 feet to where a crosscut tunnel has been run in 75 feet to intersect this ledge in its strike. This tunnel runs through a very quartzose schist, and crosses several small quartz veins, carrying copper and iron pyrites, and near the face was a 30-inch vein of milky white quartz with these pyrites, but the main ledge had not then been reached, although it is reported that on since continuing it, a mass of copper-bearing material has been reached.

More extensive work will soon be begun on this property to develop this large showing of copper rock, which so far has proved to carry low values in gold and silver.

To the west, on the Shakespeare, in a 10-foot tunnel, is a narrow vein of quartz and copper pyrites in the schists; and on the Key City is a small quartz vein, not traceable for any distance.

Tyee.—This claim, lying immediately above and east of these outcroppings on the Lenora, had had the ledge traced up to its boundary line, near which an 8x8 foot shaft was being sunk. This has since been sunk through 50 feet of barren, greyish rock, quite free of any signs of mineralization; but at this depth, as an 18-foot crosscut revealed nothing, it was decided to sink deeper, and in a few feet, it is now reported, a body of nearly solid chalcopyrite was struck, on a ledge 10 feet wide of the fine grained "yellow copper" ore, with some quartz, and already a considerable amount of this ore has accumulated on the dump.

The claim is owned by Clermont Livingstone, et al., Duncans.

Belle.—On this claim, lying north of the Lenora, in the greyish schists, probably diabasic, is (a) a small vein, a few inches wide, of quartz and copper pyrites; (b) two very large quartz reefs, about 100 feet apart, in a solid dioritic rock, reefs 20 to 40 feet wide, of barren looking, milky white quartz, with no signs of any sulphides, and which have never been prospected or tested for gold; (c) another but small quartz ledge, somewhat decomposed and iron-stained, on which a little work has been done, with no results or values in gold obtained. Located about 1,100 feet above the Chemainus River.

Copper Canyon.—On the Victoria and Susan, owned by P. J. Pearson, Chemainus, a tunnel had been started on the west bank of the Chemainus River and 100 feet above it, and run S. 35 degrees W., along a small quartz vein, 4 to 20 inches wide, of quartz and copper pyrites, carrying some gold and

silver. This vein lies almost conformably with the inclosing schists, and, besides the vein exposed in the tunnel, a little work had disclosed some mineralized rock in two other places along the east bank.

There is a fine body of water in the Chemainus River, hence an excellent water power; but no good trails have been cut out to reach this property, that lies 1,100 feet below and west of the Lenora.

Other Claims.—A large number of claims have been staked off, some in small outcrops mineralized with a little copper and iron pyrites; others in those large leads of barren looking untested quartz, but little or no work has been done upon them. The surface indications on those claims higher up the hill as described, are certainly very good, and these claims should be carefully prospected; but until they are, it will be futile to even consider the shipment of ore for some time to come, or until a good amount is in sight. It will not be at all difficult to find the average values in this ore by careful sorting, sampling and assaying; and if work shows up good bodies of pay ore here, the means of transport can be provided.

This section lies within the boundaries of the E. & N. R. land grant, and titles to these claims, with rights to all metals found upon them, can be obtained on purchase.

Report No. 4.

A Copy from Published Report of the Minister of Mines for British Columbia, 1898, from Pages 1147, 1148 and 1149.

LENORA MINERAL CLAIM.

The Lenora mine, owned by Hy. Smith, et al., is situated on Mount Sicker, on the south slope of the valley of the Chemainus River, and distant from Westholme, on the E. & N. Railway, some eight miles over a very fair wagon road, built during the past year by the owners, with the assistance of the Government. The road, being new, is a little soft in places, but is down grade all the way from the mine to the railway, and heavy teams were hauling over it with apparent ease.

As this property was reported on last year, I shall confine myself to the actual development at the date of my visit.

On the surface, in a small ravine, there is a large outcropping of solid sulphide ore—iron and copper pyrites as wide as 20 to 30 feet in one place lying in a country rock of schist and shale, cut by numerous dykes. This outcropping has been traced up the ravine, and found to continue more or less interruptedly for several hundred feet, and enters into Tyee ground.

A tunnel has been run in to cut this outcropping ore body at a depth, and was in some 370 feet, with various crosscuts, etc. The mineral seems to be chiefly associated with two dykes, or possibly in two zones, about parallel and running north and south, with seemingly a dip to the east.

At a point in the tunnel about 192 feet in from the mouth, a drift had been started off to the east for a few feet, and in this a winze had been sunk 100 feet, from which point a drift was being run to the west to cut at this lower level the ore body found in the tunnel. This drift had been run some 100 feet, but though it cut through rock having the same characteristics as that enclosing the ore above, the continuation of the ore body had not been found.

The ore met with in the tunnel was irregularly distributed through a greenish dyke, and assays from samples taken from the dump gave 5 to 10 per cent. copper, 5 to 10 oz. in silver, and from $5 to $10 in gold. A trial shipment of some 20 or more tons was made this fall to one of the American smelters, but the returns have not yet been received.

The development, although considerable, has not as yet proved the size of the ore body, nor has it been such as would warrant the prediction that the property will develop into a mine. At the same time, the large surface croppings and the ore met with in the workings give strong hope that further development will be satisfactory.

Steel rails have been laid in the tunnel, and iron dump cars were in use. About eight men were employed in the mine.

TYEE MINERAL CLAIM.

A claim lying immediately above the Lenora and owned by Clermont Livingstone et al., of Duncans. As already stated, the ore body found on the surface of the Lenora has been traced into this claim, and on this outcrop a shaft has been sunk at a point a few feet from the Lenora boundary. This shaft was so full of water that I could not examine it, but it is said to be down 50 feet.

A second shaft was sunk a few yards further up the hill, with the evident intention of proving the continuation of the outcrop, but I am informed it was not successful.

The development on the Tyee amounts to very little, and any importance the claim may have is derived from the somewhat successful development in the Lenora.

It is reported that a Company has been formed to float this property in England for a large sum. The scheme should be brought before the public as an undeveloped prospect, with some promise; anything else would be premature.

MOUNT SICKER.

Attention is being drawn to Mount Sicker, situated about 50 miles from Victoria, on the E. & N.

Railway. This mountain is of a diorite and schist formation, running nearly east and west, and very little broken, as proved by tracing the bands of rock almost the entire length of the mountain. A great number of claims have been located in this section, and considerable assessment work has been recorded, some good prospects having been opened up, notably the Tyee, Richard III., Copper Canyon, Fortuna, Queen Bee and Lenora.

Tyee.—On this claim a shaft has been sunk a depth of 45 feet on a very promising looking reef of rock, carrying copper, gold and silver.

Richard III.— This claim is situated on the same lead as the Tyee, and adjoins that claim on the east. A shaft has been sunk to a depth of 70 feet through a small quantity of the same ore all the way down, but as yet the permanent ore body has not been reached.

Fortuna.—On this claim a tunnel has been run in a distance of some 130 feet, and it is now reported to have crosscut six or seven feet of copper ore.

Queen Bee.—A tunnel has been driven on this property directly into the reef a distance of 65 feet. The ore is said to carry free-milling gold.

Copper Canyon.—On this claim a tunnel has been run 100 feet alongside of a quartz reef highly mineralized with copper pyrites. The width of the reef is 18 inches.

Lenora.—Considerable work has been done on this claim, consisting of a tunnel driven 100 feet and crosscutting two ore bodies, one 12 feet, the other 6 feet in width. On the north ore body a drift has been run 300 feet. Two crosscuts have been made, proving the parallel ore body to the same distance. A shaft now being sunk has reached a depth of 70 feet below the tunnel, making in all about 600 feet of work. A wagon road has been built, new buildings for men's quarters completed, an ore shed 16x50 feet finished, and a steel tramway laid the entire length of the drift, passing out through the ore shed. The rock from the mine is taken out in iron cars of the Truax pattern, of which two are now in operation.

Report No. 5.

Copy From the Published Report of the Minister of Mines for British Columbia, 1899, from Page 809.

MOUNT SICKER.

On this mountain there are some 15 claims, owned by the Mount Sicker & British Columbia Development Co.

Lenora Mine.—The work done has been principally on the main vein running through the Lenora, a Crown-granted, full-sized claim. This mine is distant from Westholme Station, on the E. & N. Railway, about six and a half miles, and is at an elevation above the sea of about 1,400 feet. The development work consists of a tunnel of 547 feet, with crosscuts amounting to 210 feet, and a shaft sunk 200 feet, from the bottom of which a crosscut drift has been run 140 feet. The ore body has been proved at the different levels, and in the outcrops at a number of places along the strike of the vein.

The width of the ore body varies from 3 feet 6 inches to 20 feet. At the present time it is estimated that there is in the ore shed, ready for shipment, about 600 tons of ore, and about 1,500 tons on the dump, consisting of first and second-class ore, the latter going about $12 per ton. About 1,500 tons of ore have been shipped, and it is estimated that when the horse tramway is completed, on the 1st February, 1900, the output will be 1,500 tons per month.

The average returns from the smelter of the ore shipped is: Gold, 1.8 ounces; silver, 3.8 ounces; copper (dry), 9.2 per cent. The ore is very uniform in value, and consists of about 22 per cent. iron and 24 per cent. silica, with chalcopyrite. The vein has been proved to the 200-foot level, and there is every reason to believe that it runs to a great depth. The ore is easily mined and at a low figure, the country rock being very soft, consisting of mica, talcose and graphitic schists. On the other claims owned by the Company numerous veins exist, but only ordinary prospecting has been done. Timber is plentiful, and the Chemainus River affords good water-power for mining purposes.

Report No. 6.

BOARD OF TRADE EXTRACTS.

From the 21st Annual Report of the British Columbia Board of Trade, 1900, Pages 11 and 12, and 15 to 19.

MINING.

Of the various industries, mining continues to occupy the place of first importance, and its uniform yearly growth for so new an enterprise is certainly very encouraging, the following table of production during the ten years ending 1899 speaking for itself :

PRODUCTION FOR EACH YEAR FROM 1890 TO 1899 (INCLUSIVE.)

Year.	Amount.
1890	$ 2,608,803
1891	3,521,102
1892	2,978,530
1893	3,588,413
1894	4,225,717
1895	5,643,042
1896	7,507,956
1897	10,455,268
1898	10,906,861
1899	12,356,555

The increase of 13 1-6 per cent. during 1899, compared with the previous year, is due to a large output of gold, placer and lode, copper and coal. The output of silver-lead ores a falling off, due principally to the closing down of galena mines in the Slocan district, consequent upon the failure of the owners and miners to agree on average settlements. Although the shortage in 1899 amounted to $570,180, the result of the actual workings and construction of the ledges previously expressed in the confidence as to the permanency of the mines in the Slocan district.

Vancouver Island. In the case of Vancouver Island a departure can be made by mentioning a locality rather than a mine. This property is situated at Cowichan Lake, about six miles from the Esquimalt & Nanaimo Railway, with which it is connected by the waters of Lake Cowichan and the remainder transportation. Development consists of a tunnel over 500 feet, and there are 400 feet of cross-cuts, drifts and upraises. The tunnel is about 200 feet vertical cross-cut at the bottom, 150 feet. This mine gives employment to 80 men. The output is about 100 tons per day. The ore is of great variety of character, requiring careful separation to treat successfully. The ore, which is rich in gold, silver, copper and lead, is treated at the Tacoma smelter, Washington, the charges being very heavy. It has been treated at the Nanaimo, Island smelter, and after paying all smelting, freight and sampling charges, returned a profit of over $40 per ton. A Company has recently been formed, with $500,000 subscribed for developing the Cowichan properties, on the south, known as the Lake. Another property has commenced work on the north shore, between the Lake and the Lake on the south. There are other excellent prospects near Victoria. Out in the Lake district, distant about 12 miles, some 2000 tons of ore have been taken out in development, which is expected to average 15 per cent. copper, with gold and silver.

There are many claims upon which development work has been done in the San Juan valley, west of Victoria, but it is too limited to comment upon further than to remark that the results have encouraged owners to continue to exploit their property. Alberni is the oldest lode mining district on Vancouver Island, and on some of the properties extensive workings have been performed underground, while hundreds of others assessment work is proceeding with the object of obtaining Crown grants. Among the most noted, both for the richness of the ore and the magnitude of the works, is the Mineral Hill.

In the extreme [illegible] on Vancouver Island, the [illegible] Alberni [illegible] Most of the claims are near navigable salt water, afforded by the numerous inlets with which the coast is indented. This will prove of great advantage in the early stages of the development of these properties, and all the necessary fluxes have been formed for smelting on the spot as soon as plants are erected.

Mainland Coast. These remarks will mostly apply to the Mainland coast as well, where some $75,000 was expended in development work during 1899.

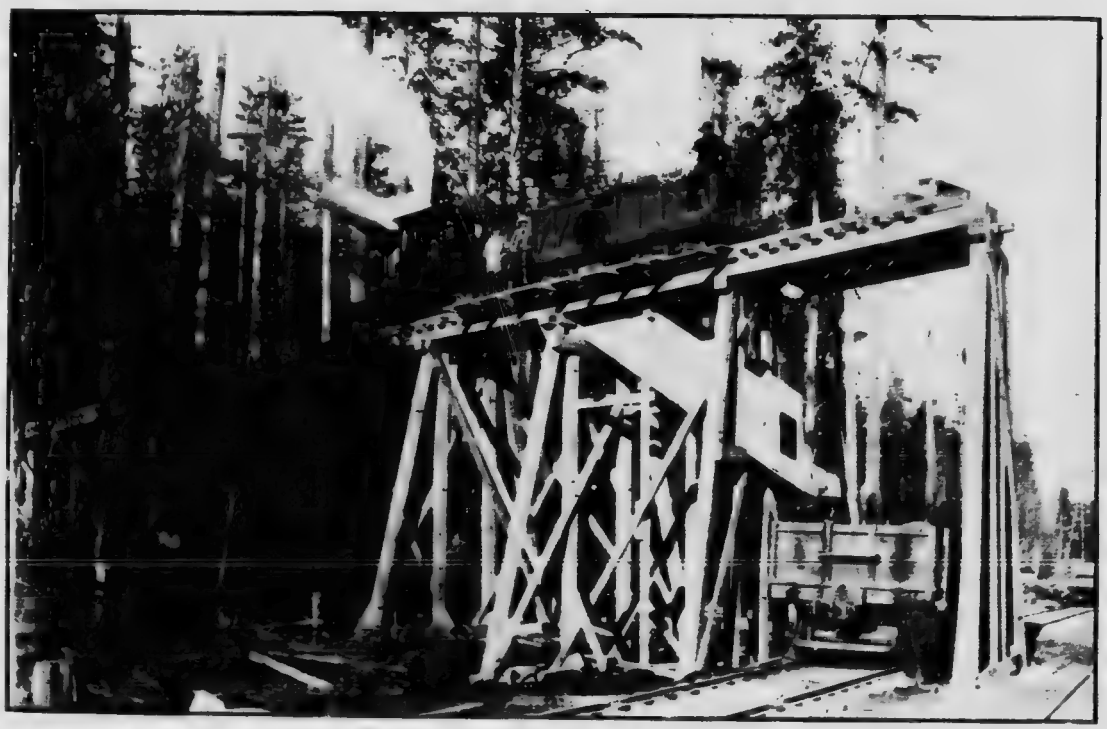
Texada and Other Islands. On Texada Island prospecting and development work increased during 1899, and at the close of the year 1,016 mineral claims stood on the records as in good standing. The shaft of the Van Anda mine has reached the 400 foot level, and is now being sunk another 100 feet. As the company smelted their own ore, returns of values are not available further than, "The matte contained about 50 per cent. of copper, and very good values in gold and silver."

The openings in British Columbia for mining investments are practically unlimited, and varied to an extent seldom met with. The mining laws are liberal, allowing any person to stake a claim 1,500 feet by 1,500 feet, about 50 acres, and hold it by improving to the value of only $100 per annum. After five such annual improvements, the survey being reckoned an improvement worth $100, a Crown grant can be obtained. Thousands of claims are in the hands of locators who have not the means to prove values. Such are freely offered for sale outright, but in some cases the owners insist upon retaining an interest. It is desired to urge upon holders of claims, when seeking capital, the necessity of putting the property in the best possible condition for estimating its worth. Complaints are too common, when visiting mining claims with the object of purchase, that the improvements made are either insufficient or of a character which do not afford much assistance in arriving at conclusions. If the full benefit of the mining industry is to accrue to the Province, the owners of claims for sale must conform to the requirements of capitalists and their agents. The ease with which claims can be re-staked without doing any work upon them is a matter which the Government should consider without delay, as there is no doubt much valuable property is thus locked up and remaining unimproved.

Other Minerals. So far only gold, silver, copper, lead and coal have been referred to. It is now desired to direct attention to deposits of iron, gypsum, mica, phosphate, quicksilver and asbestos, none of which are yet developed. It is expected that the saving of platinum in placer workings will hereafter receive more attention.

In dealing with the foregoing, the very excellent report of the Minister of Mines has been consulted, and the statements herein made are generally confirmed by that work. It is to be regretted that

LENORA ORE ON ESQUIMALT & NANAIMO RAILWAY.



TERMINUS OF LENORA TRAMWAY ON ESQUIMALT & NANAIMO RAILWAY.

SHOWING GRADE OF RAILWAY TO LENORA MINE, MT. SICKER

LENORA CO. ENGINE.

official returns are published only once a year, and it has been repeatedly urged that the Annual Report of the Minister of Mines should be supplemented by bulletins issued at least quarterly. In the absence of such official documents, it can only be stated generally that the mining industry has progressed steadily during the past six months, and that it is expected the output during 1900 will result in a substantial increase.

Smelters.—The investment of much capital in the establishment of smelters in British Columbia supports the belief that the permanency of the mining industry is beyond question. Two new plants are almost ready to "blow in," one at Grand Forks and the other at Greenwood, in the Boundary Creek country. The first named, erected by the Granby Smelting Co., is practically an adjunct to the Old Ironsides, Knob Hill and City of Paris mines, in the first two of which it is claimed that nearly a million and a half tons of ore are in sight above tunnels. The B. C. Copper Co., which has erected the smelter at Greenwood, also owns mineral claims. Their plant has been constructed to treat 250 tons per day, to start with, and will be extended later, as may be required. The Trail smelter is the largest in Canada, the total capacity being about 1,000 tons per day. The main construction is for the treatment of copper-gold ores, but there are also lead stacks and it is intended to add a lead refinery. A copper refinery forms part of the existing plant. The Hall Mines smelter at Nelson can treat 300 tons of ore daily, and has both copper-gold and lead-silver ores. The Pilot Bay smelter can handle only lead-silver ores. The Van Anda smelter, a copper-gold plant, is not so large as those mentioned, but meets the Coast requirements, where the mines are not extensively developed.

Report No. 7.

LETTER FROM MR. HARRY SMITH

Duncan's, B. C., May 13, 1901.

W. A. Dier, Esq., Victoria, B. C.:

Dear Sir,—I herewith comply with your request re properties you have purchased on Mounts Sicker and Brenton. As you know, I spent four years on Mount Sicker, and was the original locator of the now famous Lenora and Tyee mines, together with several other properties on the mountain. The Victoria claim of your group is situated very favourably, being on the strike of the Lenora reef, and in one or two places exposure not only shows the same vein matter, but shows the same ore, and no doubt but work in one place would prove a valuable body of the same copper ore. The Copper Canyon claim has a tunnel driven along the ore body, and has now considerable good ore in sight, assays from which I have obtained good results. The remaining claims I am unacquainted with; but with the two properties and exposures on same, you certainly have very favorable properties on which to begin operations. There is no doubt but what intelligent work will in a short time prove these claims to be valuable shipping mines, as the Tony, now being developed on this same strike, has proven the continuation of the Lenora's rich ore body.

It would be useless for me to here repeat what is already history of the Lenora and Tyee mines, as they are already proven second to none in this Province, and have shown pay ore from grass roots, and certainly there is not a camp anywhere in this Province that has turned out the ore that this has, with so little money spent in development.

Having been the first one to bring the mountain to the notice of the public, and having introduced the first capital on the mountain, from which such good results have been obtained, with the knowledge gained from four years spent in the camp, I assure you that you are to be congratulated on acquiring so valuable properties as these are.

Trusting that these few lines will meet with your approval, and further assuring you that I shall be pleased at any time, when business permits, to go over the properties with you,

I beg to remain,
Sincerely,

HARRY SMITH.
Duncan, B. C.

W. A. Dier, Esq., Victoria, B. C.

P. S.—I could, of course, give you a full report in detail if you should wish it. H. S.

MEMORANDUM OF ASSOCIATION.

1. The name of the Company is "The Mounts Sicker and Brenton Mines, Limited."

2. The registered office of the Company will be situate in the City of Victoria, or elsewhere on the Island of Vancouver, Province of British Columbia.

3. The objects for which the Company is established are: (a) To purchase of William Alfred Dier his interest in the mineral properties and mining claims situate on Mounts Sicker and Brenton, in the Mining Division of Victoria, Vancouver Island, and for that purpose to enter into and carry into effect an agreement for purchase which has been prepared ready for execution, and which has, for the sake of identification, been initialed by two of the subscribers hereof, and is intended to be made between the said William Alfred Dier and this Company. (b) To carry out the objects set forth in Section 6, Chapter 5, of the Statutes of British Columbia for 1900, being the Companies Act, 1897, Amendment Act, 1900, which objects shall, as set forth in such section, be deemed to form part of this Memorandum of Association.

POWERS AND OBJECTS.

"(b) Every company, the objects whereof are restricted as aforesaid, shall be deemed to have the following, but, except as in this Act otherwise expressed, no greater powers, that is to say:

"(1) To obtain by purchase, lease, hire, discovery, location or otherwise, and hold within the Province of British Columbia, mines, mineral claims, mineral leases, prospects, mining lands and mining rights of every description, and to work, develop, operate and turn the same to account, and to sell or otherwise dispose of the same, or any of them, or any interest therein:

"(2) To dig for, raise, crush, wash, smelt, assay, analyze, reduce, amalgamate and otherwise treat gold, silver, copper, lead ores or deposits and other mineral and metallic substances and compounds of all kinds, whether belonging to the Company or not, and to render the same merchantable, and buy, sell and deal in the same, or any of them:

"(3) To carry on the business of a mining, smelting, milling and refining company in all or any of its branches:

"(4) To acquire by purchase, lease, hire, exchange or otherwise, such timber lands or leases, timber claims, licenses to cut timber, surface rights and rights of way, water rights and privileges, mills, factories, furnaces for smelting and treating ores and refining metals, buildings, machinery, plants or other real or personal property as may be necessary for or conducive to the proper carrying out of any of the objects of the Company:

"(5) To construct, maintain, alter, make, work and operate on the property of the Company, or on property controlled by the Company, any canals, trails, roads, ways, tramways, bridges and reservoirs, dams, flumes, race and other ways, water courses, aqueducts, wells, wharves, piers, furnaces, sawmills, crushing works, smelting works, concentrating works, hydraulic works, electrical works and appliances, warehouses, buildings, machinery, plant, stores, and other works and conveniences which may seem conducive to any of the objects of the Company; and, with the consent of the shareholders in general meeting, to contribute to, subsidise or otherwise aid or take part in any such operations, though constructed and maintained by any other company or persons outside of the property of the company, and to buy, sell, manufacture and deal in all kinds of goods, stores, implements, provisions, chattels and effects required by the company or its workmen and servants:

"(6) To build, acquire, own, charter, navigate and use steam and other vessels for the purposes of the company:

"(7) To take, acquire and hold as the consideration for ores, metals or minerals sold or otherwise disposed of, or for goods supplied, or for work done by contract or otherwise, shares, debentures, bonds other securities of or in any other company, t objects of which are restricted as herein aforesa and to sell or otherwise dispose of the same:

"(8) To enter into any arrangement for sharin profits, union of interests, or co-operation with a other person or company carrying on or about carry on any business or transaction which a compan specially limited under this section is authorised carry on:

"(9) To purchase or otherwise acquire an undertake all or any of the assets, business, propert privileges, contracts, rights, obligations and liabiliti of any person or company carrying on any part the business which a company specially limited unde this section is authorised to carry on or possessed property suitable for the purposes thereof:

"(10) To borrow or raise money for the purpose of the company, but so that the amount so borrowe or raised shall not, without the sanction of a gener meeting of the company, exceed one-quarter of th amount of the paid-up capital for the time being, an for the purpose of securing such money and interest or for any other purpose to mortgage or charge th undertaking for all or any part of the property of th company, present or after acquired; and to create issue, make, draw, accept and negotiate perpetial o redeemable debentures or debenture stock, promissory notes, bills of exchange, bills of lading, warrants obligations and other negotiable and transferable in struments: Provided, however, that the restriction in this subsection contained as to borrowing with the sanction of a general meeting shall not be deemed to be imperative and shall in nowise limit, control o effect any power of borrowing vested in the board of directors of the company, or of the company under the Memorandum of Association, or the Articles of Association of By-Laws of the Company:

"(11) To distribute any of the property of the company among the members in specie:

"(12) To sell, improve, manage, develop, exchange, lease, mortgage, dispose of, turn to account or otherwise deal with the undertaking or the whole or any part of the property and rights of the company, with power to accept as the consideration any shares, stocks or obligations of any company the objects of which are restricted as aforesaid:

"(13) To do all such other things as are incidental or conducive to the attainments of the foregoing objects."

The capital of the Company is one million dollars, divided into four million shares of twenty-five cents each. No liability beyond the amount actually paid upon the shares in this Company by the subscribers or holders shall attach to such subscribers or holders. The Company shall have the power to issue any further capital, with such preferential or other rights as may be deemed desirable.

We, the several persons whose names and addresses are subscribed, are desirous of being formed into a Company in pursuance of this Memorandum of Association, and we respectively agree to take the number of shares in the capital of the Company set opposite our respective names:

NAME	ADDRESS	OCCUPATION.	NO. OF SHARES
William Alfred Dier,	Victoria, B. C.	Gentleman,	One.
Eugene Errickson Smith,	Syracuse, N. Y.	Manufacturer,	One.
Elmore Douglas Dier,	Victoria, B. C.	Broker,	One.
Peter J. Pearson,	Chemainus, B. C.	Mining Engineer,	One.
John P. Mann,	Victoria, B. C.	Gentleman,	One.

Dated the 9th day of May, 1901.

Witness to the above signatures:

Murray C. Potts, Victoria, B. C.

Article Extracted from Page 28 of "The Mining Record, of Victoria, B. C., published March, 1899.

THE MOUNT SICKER MINES.

It is a matter for some surprise that even among residents of the cities of Victoria and Vancouver so little interest is taken in the development of the mines of the Mount Sicker district. Yet here are, perhaps, the finest showings of copper ore on the whole of Vancouver Island, and for the past three years these have been prospected and exploited. Without "booming" of any sort, work has been continuously carried on, and the principal claim, the Lenora, has been quite systematically developed. Now, the ore bodies on this property have been proved to quite a considerable extent, and it is the intention in the near future to instal machinery and set up a smelting plant for the treatment of the ore on the spot, at a minimum cost.

Mount Sicker is situated about six miles from Westholme Station, on the Esquimalt & Nanaimo Railway, some fifty miles from Victoria and six miles from tidal water. The altitude of the mountain is about 2,000 feet, and the Lenora mine is 1,700 feet above sea level. The Mount Sicker & British Columbia Development Company, Limited, own seventeen claims in this neighborhood, and hold as well numerous interests on Vancouver Island and in West and East Kootenay. This Company has, however, chiefly confined operations to the development of the Lenora mine, in which a tunnel has now been driven a distance of 350 feet, with an upraise to the surface, and a winze from the level of the tunnel sunk to a depth of 100 feet, from the bottom of which a crosscut 85 feet in length has been run in a southerly direction. Besides this there are numerous open cuts and crosscuts also to prove the ore bodies. The country rock of the district is diorite and diabase, with altered grey baleose and silicious schists. On the northern and western sides of Mount Sicker the Chemainus River flows, and affords power for operating machinery. Indeed, both timber for mining purposes and water are plentiful.

But to return to the mines. The Lenora has now in sight about 7,000 tons of ore of shipping grade, also some 800 tons on the dump. Assays from the Lenora ore run from 4 to 19 oz. in gold, from 4 to 10 oz. in silver, and from 2 to 25 per cent. in copper; the shipping ore now being hauled to the railway runs about 16 per cent. copper, with gold and silver values. The main ore body consists of a rich copper sulphide, carrying good gold and some silver values, and where considerable development work is being carried on, the main shaft double compartment being down 220 feet, with the principal crosscut at the 156-foot level being now 160 feet in length, of which 60 feet issues through the largest ore body.

Besides the Lenora, there are several other promising properties on Mount Sicker, notably the Tyee mine group, which joins the Lenora on the ea These claims are now owned by the Tyee Develo ment Company, Limited, recently formed in Londo who have already commenced active developme work. It is alleged that the Tyee lode is a tr fissure vein in a country rock, which is apparent diorite or diapose, with zones of altered schist. Ho ever, the exact classification of this country rock h not yet been determined by expert petrographe The total length of the ore body so far exposed trenching on the surface is 745 feet, of which abo 164 feet has been so far proved on the Tyee. T lode formation has also been found by sinking on t Richard III. claim, adjoining the Tyee on the ea The strike of lode formation on all three claims this group is S. 70 degrees W. On the Tyee clai two prospecting shafts have been sunk to depths approximately 50 feet, exposing a ledge nine fe wide, assays from which are as follows: Coppe from 2.24 to 23.4 per cent.; silver, 1 oz. 17 dwt. 7 oz. 18 dwt.; and gold, 2 dwt. to 11 dwt.

A third group of properties, known as the Copp Canyon group, and situated on either side of the Ch mainus River, is attracting not a little attention, a promises exceedingly well. The same vein that found on the Lenora and Tyee is supposed to continu through this ground, and a tunnel 100 feet in lengt has been driven in on this ore body, and some 30 40 tons of shipping ore have been taken out. addition to the properties thus especially mentione there are numerous excellent prospects in the neigh bourhood of Mount Sicker; in fact, the whol mountain side has been staked in mineral claim The surface outcroppings indicate veins as wide from 20 to 30 feet, and in nearly every instance fa to good values from assays have been returned. Th Mount Sicker claims have as yet not passed the pro pect stage, but the day is not far distant when th development work that is now in progress will tell i tale; and if present indications are to be taken a any guide, the very brightest future awaits th district.

Article Extracted From the Mining Record, of Vi toria, B. C., for November, 1899.

THE MONTH'S MINING.

Mount Sicker.

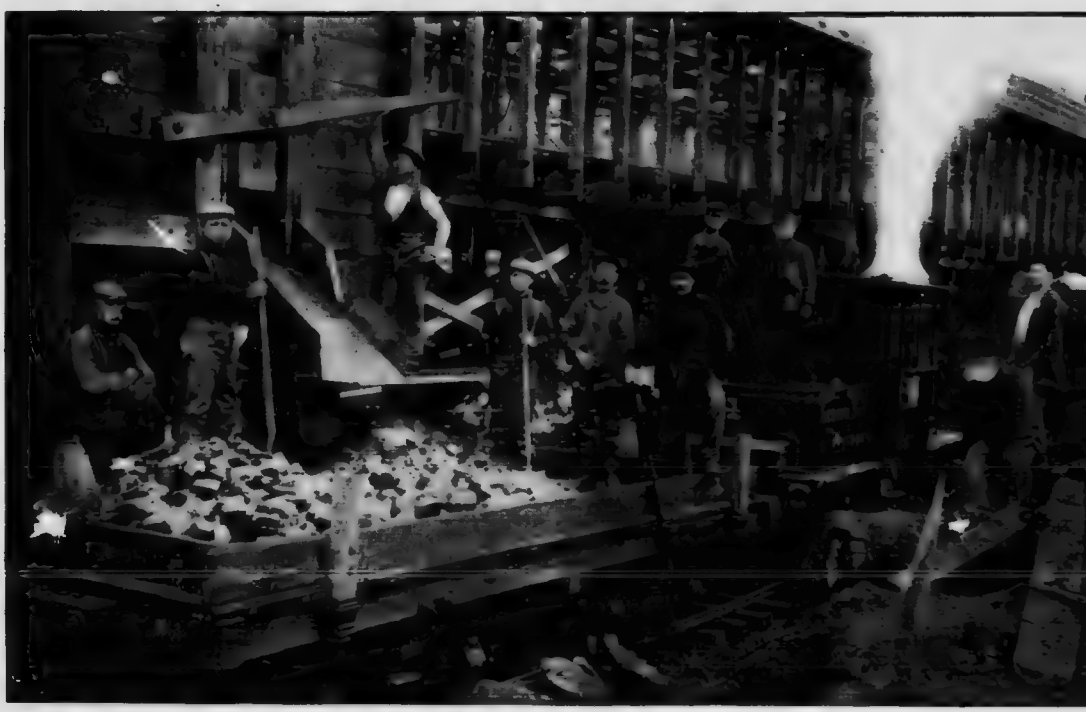
[By Our Special Commissioner.]

The Tyee has a somewhat interesting history Rather more than two years ago two men name respectively Smith and Buzzard decided to prospec Mount Sicker for mineral. There was no trail i those days, and the hillside, thickly studded wit timber and covered with underbrush, was not an eas territory for exploration of this character, but th

LENORA ORE DUMP.

LENORA SORTING SHED.

SAWMILL AT LENORA MINE.



LENORA NEW SORTING SHED AND ORE BUNKERS.

two men persevered in their search, and were rewarded by discovering some indication of mineral-bearing rock, upon which they located and staked the Tyee claim. Well, neither of them had money to prospect the property thoroughly, so it was decided between them to go to Victoria and try and interest capital there in the new find. It thus came about that our two prospectors approached Capt. Irving, Mr. W. A. Wilson and another well-known business man of Victoria, and offered to sell them the Tyee claim outright for $750. These gentlemen, however, refused to purchase the property at any price, and Messrs. Livingstone, Blyth, Dickie, Wood and Mollander, of Duncans, who had acquired a controlling interest in the Tyee, told the locators of the claim that if they would uncover the lead on the property they would be given another quarter interest in addition to the rights they already possessed in the claim. Accepting these conditions, Smith and Buzzard went back to the Tyee, and in three days succeeded in removing the diorite capping upon which they had located, and exposed a good showing of mineral. Within a week they had sold their interests - a one-half, understand—for $5,000. The owners then proceeded to sink a shaft on the spot where the ledge had been uncovered, to a depth of approximately 50 feet, in ore for the entire distance. Nothing particular was done after that until May of the present year, when Mr. Livingstone—who, by the way, must be regarded as the first man to interest capital in Mount Sicker mines—having succeeded in forming in London a development company or syndicate with a modest working capital of £15,000, resumed operations by rimming out and timbering the old shaft, which was further carried down a depth of 75 feet in ore. From this point the shaft was continued vertically in country rock to a depth of 150 feet, a crosscut being driven here to the south a distance of 21 feet, and passing through 12 feet of gold-bearing quartz of low value. At the same level a drive was also made of 22 feet to the north, encountering a seven-foot body of copper ore, associated with a baryta gangue, followed by shales impregnated with copper, and, last of all, quartz, the entire width of the pay chute being 24 feet. The crosscut was next continued to a distance of 50 feet, when the hanging wall, which is very well defined, was struck. A drive was then put in on the shale to the south, and the ore body was again five feet in. A drive to the west was in ore for the entire distance. Recently the shaft has been taken down to a depth of 200 feet, at which level the work at present is confined to crosscutting in a northerly direction to strike the ore body. At Mr. Robertson's invitation I descended the shaft and examined the various workings. The shaft is a double compartment one, 6x8 feet in the clear, magnificently timbered and lined and adequately ventilated by means of a hand blower. The timber used is hewn to dimensions of 7x7 and securely mortised together, the lagging of two-inch planking, and the lining of one-inch boards. The ladder-way is also worthy of mention, the rungs being, of course, made of iron. Both to the geologist and the mineralogist the formation on Mount Sicker affords much that is of interest. The Tyee vein appears to be a true fissure in a formation of unaltered schist. The filling is very peculiar, and seems to consist of streaks of varying thickness, first of country rock (talcose schist) impregnated with iron pyrites; second, blake shale; third, copper ore with a baryta gangue; fourth, shale impregnated with iron pyrites; and fifth, quartz, shale, baryta and coppery pyrites. Although this formation is not at all common in British Columbia, I am informed it has a counterpart in the Sultana mine, of the Rainy River district of Ontario. As regards values, although I did not have the opportunity of seeing the assay certificates, I was reliably told that the average value of the ore in the Tyee was 5 per cent. copper, $6 gold and 5 ounces silver. The barytic ore, however, carries much higher values in copper, the returns giving 10 to 12 per cent. in this metal. The strike of the vein is east and west, and the dip 70 degrees north, the elevation of the property above sea level being 1,750 feet. In addition to the work already enumerated, the vein is being prospected 420 feet east of the main workings by a prospect shaft, down at present some 30 feet, a crosscut to the north of 33 feet and to the south of 14 feet, in which the indications are most promising. Under Mr. Robertson's superintendence, the average amount of work performed during recent months has been 48 feet, the cost per foot being $25. Most of the men—and no finer crew could be got together in British Columbia—are Canadian and British miners from the Kootenays. Here at least the eight-hour law does not seem to have created strife, for while the miners are paid the $3 wage, the management only charge the employees the reasonable sum of $4.50 a week for boarding them. There is no profit derived from the boarding house on this basis of charge, but then a mining company has no legitimate right to expect profit from this source. Another matter that has contributed greatly to the local popularity of the Tyee Development Company is the fact that residents of the district are always given the preference when surface labor is required at the mine. At present there is accommodation at the Tyee for 35. Before long, however, work is to be temporarily suspended while the mine is handed over to a new company, when the present horse-whim will be superseded by a steam-hoist and other machinery, and operations will be continued on a somewhat larger scale.

The Lenora Mine.—But the afternoon is passing, and I have yet the Lenora to visit, so I descend the hill and introduce myself to the manager, Mr. Morris, who without loss of time piloted me to the workings. The Lenora was staked in the spring of 1896, by the same two men who located the Tyee—Smith and Buzzard. But their discovery was made, not on the copper showing that is now being exploited, but on a small quartz outcrop. Thanks to a forest fire, the well-defined copper lead was exposed, and in 1897 a Mr. Smith, of Glasgow, Scotland, agreed with the

locators to expend $500 in preliminary development work on the claim in consideration of receiving a half-interest therein. With this money a tunnel was driven into the hill, crosscutting two leads. This result was so satisfactory that early in January, 1898, the Mount Sicker & British Columbia Development Company acquired an option on the property for a one-fifth interest on condition of expending £5,000 in its further development. Work was commenced by driving east on the lead, and continued for a distance of 500 feet, crosscuts being run at intervals, and thus the south and parallel vein was encountered. Later on, at a depth of approximately 100 feet in the tunnel from the surface, an upraise was made, and at the same time a winze was sunk to a depth of 100 feet. The tunnel was then continued a further 225 feet, which represents the work on the property to date. But during the spring of this year the Mount Sicker Company acquired full proprietary rights. The formation at the Lenora is similar to that at the Tyee, but the ore appears to be of somewhat higher grade; there is, moreover, quite an extensive body of pyrrhotite, and this is now being stoped out. The tunnel is well timbered with square sets and provided with tram lines. As to the ore values, the following returns of smelter shipments give a fair idea, but it must, of course, be remembered that the ore sent away for treatment, with one exception, has been carefully selected and sorted, and, therefore, represents the higher grade product of the mine. The first shipment was made to Tacoma, on March 4th, 1899, and the smelter returns were: Weight, 16,399 pounds; gold value, 18 ounces; silver value, 3.6 ounces; copper, 5 per cent.; value per ton, $13.05; net returns per ton, $7.05.

This shipment consisted of ore from the old dump, and was not sorted. The remaining returns are more satisfactory :

Smelter Returns.—March 30, shipment to San Francisco: Weight, 23,978 pounds; gold value, 35 ounces; silver value, 7.04 ounces; copper, 10.7 per cent.; total value returns, $359.67; value per ton, $22.99 (copper is here valued at 10c.)

April 20th, hipment to Tacoma: Weight, 119,377 pounds; gold, 3 ounces; silver, 6.7; copper, 9.5 per cent.; value per ton, 29.44; net returns, $1,388.87.

June, shipment to Tacoma: Weight, 144,312 pounds; gold, .3 ounces; silver, 6.9 ounces; copper, 9.5 per cent.; value per ton, $32.55; net returns, $1,800.10.

September 11th, shipment to Tacoma: Weight, 203,348 pounds; gold, .32 ounces; silver, 5.4; copper, 9.69 per cent.; value per ton, $50.25; net returns, $2,465.59.

September 18, shipment to Tacoma: Weight, 281,630; gold, 2 ounces; silver, 5.1 ounces; copper, 10.8 per cent; value per ton, $30.54; net returns $3,442.93.

September 23rd, shipment to Tacoma: Weight 50 tons; net returns, $963.94.

Returns were also made of two consignments of ore made during August, but these the Mount Sicker Company have refused to accept, and the points in dispute have been submitted to arbitration. There are now 340 tons of ore at the Tacoma smelter upon which returns have not yet been received, but from the assays the copper contents of this consignment should be 15 per cent., after deducting the 1.3 per cent. moisture. The Company are now producing and sending out 20 tons of ore a day, and propose this week to increase the output to 30 tons, but how long this production can be maintained with the present stage of development is a matter of opinion. The cost of transportation at present is $1.75 per ton for haulage from the mine to the railway station and $2.25 for carriage thence to Tacoma. It has been found that the cost of freight to San Francisco is too heavy to send the ore for treatment there. The Company are employing 45 men, miners receiving $3 for a working day of eight hours, but all drilling is done single-handed, Mr. Morris telling me that according to his experience more work is accomplished by this system. At the time of my visit several commodious frame buildings were in the course of construction, and among others a bunk-house to accommodate 25 men is being erected.

Other Prospects.—Besides the Tyee and Lenora there are several other promising claims on Mount Sicker. The most important, perhaps, is the Futuna, upon which a drift has been driven for 350 feet exposing a body of pyrrhotite ore. Then there is the Mona, on the Tyee lead, but higher up the mountain; the Queen Bess, on the Westholme wagon road, upon which a Vancouver syndicate has taken bond and commenced operations; and the Baltic upon which work is to be shortly resumed, and others (to use the phraseology of the auctioneer) too numerous to mention, for indeed the whole mountain is "staked out."

In conclusion, there is no reason why the Mount Sicker camp should not, in the near future, contribute very considerably to the mineral production of British Columbia. Both the Tyee and Lenora are excellent prospects, with better showings and in a more advanced stage of development than many so-called "mines" in Kootenay, whereof a great deal of "boom" nonsense appears in the press. The more of the Mount Sicker claim-owners should be "testilente," and if I do not take too much on myself I should like to be allowed to add that at this stage the game the talk of erecting smelters and goodness knows what else, in the neighbourhood of the Lenora and Tyee is surely somewhat premature, not to say absurd.

THREE STEAMERS CARRYING ORE.

Lenora Mine at Mount Sicker Shipping Over a Hundred Tons a Day—Smelter Will Be Built This Fall by the Owners of the Tyee Property.

[Victoria Daily Colonist, February 25, 1901.]

Ore is being carried on three steamers to the Tacoma smelter from the Lenora mine at Mount Sicker. This has been the record for some weeks past, and it is likely to be kept up for the rest of the year, as the owner of the property, Mr. Henry Croft, has a contract to deliver 25,000 tons to that smelter this year. The tram which was built from the mine to the line of the E. & N. railway has been completed and hauling ore for a month or more, and at present the shipments from the mine are at the rate of 105 tons per day. The tram line is some seven miles in length, and strikes the railway near Westholme Station. Here the cars have to be transferred to the E. & N., and thence to the water for transhipment. It is the intention of the owners to extend the tram to the water's edge another mile and a half, when the shipments will then be made direct. The steep grade on the line requires the use of a geared engine, instead of one with the usual side drive-rods.

Speaking of the mines of the Mount Sicker district generally, Mr. Pellew Harvey, who has just returned from a few days' visit to the properties, said there can be no doubt in the minds of all interested in the development of mining on Vancouver Island that this camp is a demonstrated success. The achievements of Mr. Croft are ample proof for the most skeptical. Mr. Croft, Mr. Harvey said, deserved the greatest credit for the way in which he had held on to the property, and had at last made it not only a shipper, but a payer. He was entitled to all the reward he was now reaping. The results of the shipments are eminently satisfactory, as the figures Mr. Harvey gave will show. The average values of the ore now being shipped total $18 per ton, and as that is the smelter returns, and, therefore, represents gross revenue, it can readily be seen that the Lenora mine is a factor in the mining interests of the province. Mr. Harvey is consulting engineer for the Tyee mine, and is therefore in a position to know of what he speaks. He has also a reputation for conservative views on all matters connected with mining.

Mr. Harvey is directly in charge, as managing engineer, of the development work now going on in the Tyee property, which adjoins the Lenora. The owners of this property have capital enough provided for two years' development, and they intend to go on for this year attempting to realize on the values already proved in their property. There is over 1,000 feet of shafting and tunnelling driven, the main shaft being down 240 feet and the face of the ore body being 24 feet, on which numerous crosscuts have been made. The mine is equipped with the best of machinery, including Knowles pump, air compressor, Ingersoll-Sargent drills, and other appliances. Thirty-five men are employed at the mine steadily, and there is, at a conservative estimate, at least 28,000 tons of ore in sight, all of proved values, made in frequent tests. The assays have shown an average of from $4 to $5 in gold, 4 ounces silver, and from 8.5 to 10 per cent. copper.

When the period of development is past and the Company begins to realize on their property, it is their intention to smelt their own ore. Work on the smelter will be begun in September next, it is likely, and it will be built on the water-front a few miles from the property. A site has already been selected. A second stack will be erected, and then the Company will be prepared to do custom smelting and to purchase ores from other properties. Altogether, Mr. Harvey predicts a bright future for the camp, and that future is not distant.

LORD ROBERTS AND QUEEN BEE.

Two Copper-Gold Groups Which Are Turning Out Well.

[Victoria Daily Colonist, February 22, 1901.]

N. S. Clarke, manager of the Vancouver-Mount Sicker Syndicate, arrived from Seattle last night and is registered at the Dominion Hotel. The Company of which Mr. Clarke is manager is composed chiefly of residents of Vancouver, and was organized to develop the mining properties known as the Lord Roberts and Queen Bee groups, in Victoria Mining Division.

Considerable work has been done on the Queen Bee, two shafts having been sunk and 150 feet of drifting when work was suspended last Fall. Operations will be resumed shortly, and will be pushed during the coming Spring and Summer.

The Company has just bought a large boiler, hoisting plant and steam drills, which will be installed at once on the Lord Roberts, which it is the intention to develop on a large scale. The main shaft is now down 55 feet, and it is proposed to sink it to 200 feet with all possible expedition.

Mr. Clarke says the property is looking well and promising. The Company is quite satisfied with the value of its properties, and is working systematically to block out the ore before beginning to ship. The Lord Roberts is advantageously situated for shipping, as it is only two miles from tide-water on Maple Bay. The Queen Bee is on Mount Sicker, close to the Lenora and Tyee.

While Mr. Clarke is quite confident of the value of the properties under his management, he has a good word to say of the Lenora, which, he says, is a veritable bonanza. He declares there are other prospects in the neighbourhood which may turn out to be quite as valuable as anything yet opened, and deplores the lack of enterprise shown by Victoria capitalists in neglecting the opportunities offered them so near home.

MOUNT SICKER.

Mining and Building Continue Brisk at the Camp.

[Victoria Daily Colonist, March 6, 1901.]

Mount Sicker, March 4.—The attention of United States capitalists is being called to Mount Sicker more than ever. Only about three days ago a claim changed hands for about $50,000, which goes to show that there is something on the mountain worth the risk of a few dollars.

Mr. W. J. Sutton was a visitor last week in the interest of the Tyee Copper Company, and, judging from samples which he obtained, the Company have property which no doubt is second to none on Mount Sicker.

Buildings are going up on the townsite daily. Lumber is high, but that seems to be no barrier to the march of improvement.

The Mount Sicker school is under the management of Miss Nicholas, and that lady is well suited for the position which she holds, and has shown her ability as a teacher of young children

The Tyee Copper Company, under the management of Mr. Edward C. Musgrave, are doing splendid work, the steam drills now working day and night. There are tons of ore in sight on this Company's claim, and they propose shipping this Fall. They will operate their own line of railway and their own smelter.

It is reported that Mr. A. Crate has discovered a rich copper property near Westholme, for which he has been offered a handsome sum. Mr. Crate, believing in the steady advancement of the surrounding country, refused the offer, but doubtless will arrange to dispose of his interest.

Mr. Alex. Newhouse is developing his claim, preparatory to disposing of it to an English syndicate.

The Queen Bee and Key City claims will open up soon, giving employment to about 40 men.

Mr. H. B. Greaves now has a stage running to Duncan over the new road. The stage leaves the mines at 7:30 a. m., returning in the afternoon.

THE MOUNT SICKER MINES.

[Victoria Daily Colonist, March 31, 1901.]

I have received this week some interesting information in regard to recent developments in the Mount Sicker camp, the two principal mines of which, the Lenora and Tyee, appear to promise great things. In the Lenora it is estimated that there is at least 50,000 tons of shipping ore in sight, besides 15,000 tons of concentrating ore on the dump, and about 72,000 tons of concentrating ore in the mine. A shaft has been sunk to a depth of 189 feet, and about 1,700 feet of underground work has been completed, not including chutes or raises in the main stope. The new parallel vein carries remarkable values, the best assay obtained having given $130 in gold, 696 ounces in silver, and 14 per cent. copper, which, of course, is an extraordinarily high return. The average value of the ore shipped, of which to date there have been 11,867 tons, averages $20.82, and this is a far higher average than is at present got in any other copper-gold producing district in the province. At the Tyee about 1,500 feet of work has been done since the commencement of operations, this including an 8x6 shaft in the clear, sunk to a depth of 200 feet, not far distant from the Lenora line, on an onterop of the same ore body that is being so successfully opened in that mine. Here two crosscuts have been driven from the lower levels, in both of which large ore bodies have been encountered. A working shaft of three compartments, 13x5 inside the timbers, is now being rapidly sunk further to the east, with a view to developing the ore bodies already discovered. Two 50-horse-power boilers, a 10x12 double cylinder hoist, and a three-drill compressor were recently installed on this property.

RIVALS THE COMSTOCK.

Strike of Free Gold on Tyee at Mount Sicker—Rich Vein Uncovered.

Mount Sicker stock has been going skyward since Saturday, when one of the most phenomenal strikes of ore ever heard of in this province was made on the Tyee, where the north vein of the lead was struck in a new crossent, and an ore body of three feet opened up. The mineral is of the quality known as sylvanite, and is very similar to that of the Comstock Lode in California. Indeed, old Comstock miners now at Mount Sicker say that the ore is superior to the Comstock. In their opinion the assays will show values of from $100 to $500.

The most sensational feature of the strike was on the finding of free gold in the middle of a large sample of the ore, which was being made ready for shipment to England. On being broken up, a nugget of wire gold was exposed, measuring1-16x1-4x5-8 inches. Experts say that the presence of free-milling gold and of such value is evidence of the very high grade of the ore body in which it is found. When the news reached the city Saturday night, a number of gentlemen who are interested in Mount Sicker properties made up a party, and on Sunday visited the mines to see for themselves the wonderful discovery. Samples of the ore brought to the city show a very high grade of copper, and a thoroughly mineralized body throughout.

The Tyee people are prosecuting development work, and are sinking a new shaft. The old shaft is about 200 feet down, and work is being pushed on it also. The finding of the new vein on the Tyee proves the continuity of what is known as the north

TYEE HOIST AND COMPRESSOR PLANT.

TYEE SHAFT.

TYEE BUILDINGS.

vein on the Lenora properties. On the latter the same lead and showing the same quality of ore was found some time ago, the vein being one which did not show at the beginning of development work, but was uncovered later. The first assay made of the ore, as found in the Lenora north vein, gave $130 in gold, 696 ounces silver and 14 per cent. copper; total $520. By the new strike on the Tyee, the vein is now proved for a distance of 800 feet.

Speaking of the vein which has made such a wonderful showing, Mr. Henry Croft said to the Colonist that there was no doubt of the extent of the ore body. Mr. Carlyle, who examined the properties, said if there was anything shown by the development when he saw it, it was that the values were continuous, and that they would hold with depth. It is the general supposition that the two veins, as seen in the Lenora, are likely to become united at lower depths.

Mr. Croft said further, speaking of the character of the ore deposits on the Lenora, that they were two parallel leads about 170 feet apart, and these would likely come together with depth. The Lenora is to have another tunnel 1,400 feet in length driven, and it will be in the vein all the way. For this work, which will be undertaken and prosecuted at once, the Company is putting in a two-drill compressor.

Development is progressing on the Lenora, and already there are two years' ore in sight. There have been 12,000 tons of ore raised from the south vein, and at present some 70 tons per day are being sorted. More could be handled, but development is taking first place. The Company has ordered another locomotive, twice the size of the one at present in use, for their ore railway, and shipments are to be continued regularly.

Of other claims, Mr. Croft said the Key City, on the west side of the Lenora, was being at present opened up by Sacramento people, with very satisfactory showing. The Tony, next to the Key City, which is also being developed, showed good ore in a strike made last week. The Copper Canyon, on the river below, and on the same lead as the Lenora, has now been bonded, and development is expected.

An engineer from Scotland has examined for report the properties of the Mount Sicker British Columbia Development Company, some sixteen claims in all, represented by Mr. Croft, and it is expected that development is to go ahead on these also. East of the E. & N. Railway, on Mount Richards, ore has been struck in the 125-foot tunnel on the Daisy claim.

[Victoria Daily Times, May 11, 1901.]

W. A. Dier, who recently purchased several copper properties at Mount Sicker, has returned from his new acquisitions, where he has been superintending the commencement of development operations on the Susan, Copper Canyon and Victoria claims. So far only a few men have been put to work, but this force will be greatly augmented in a short while. The preliminary work will be carried on by hand labor, as was the case with the Lenora, the ore of these properties being much softer than in the Kootenays. In fact, Mr. Dier does not contemplate installing a compressor plant for at least three months. He pointed out that it was only recently that machinery was installed in the Tyee. Asked regarding the projected smelter at Mount Sicker, as first announced in these columns last evening, he said that he had not met Mr. Wilson, the promoter, but understood that he had his site secured.

[Victoria Daily Times, May 13, 1901.]

H. McCollough, of this city, who is interested in some of the claims on Bonanza Creek, Klondike, has been paying the Mount Sicker properties a visit, and expresses a very high opinion of the possibilities of the Lenora, Tyee and Mr. Dier's properties, as well as the other claims located in that district. Mr. McCollough made a complete inspection of the Lenora and Tyee, and says that there is an enormous amount of ore in sight, and that those who have interests in any claims at Mount Sicker have a good proposition. He says that the principal topic of conversation at Mount Sicker was the establishment of the smelter. He has accompanied Mr. Wilson on his trip to the scene, and that gentleman had remarked that his principal object in coming from the Old Country was to investigate their properties, especially the Tyee, and to make arrangements for the establishment of a smelter. The location of the smelter, Mr. McCollough thought, would be somewhere in the vicinity of Chemainus. Mr. McCollough is interested in some claims this side of Mount Sicker, which, in his opinion, contain ore as rich as that being taken from that place. Of course, these have not as yet been developed, but when the required capital can be procured this will be done.

WHERE MOUNT SICKER GIVES UP ITS WEALTH.

Deal For Seven Mining Claims Adjoining the Famous Lenora.

[Vancouver Daily Province, May 7, 1901.]

W. A. Dier, of Victoria, has purchased seven mining claims at Mount Sicker. They were bought from the original locator, P. J. Pearson. Three of these claims have been proved, at least to the satisfaction of those interested, to contain the same ledges as the Lenora mine. Two mining engineers have also given it as their opinion that this is the case. The three claims said to contain the Lenora ledges

are to be converted into shippers as soon as money ... them.

...e success of the Lenora mine, the exposure of big bodies of ore on the Tyee claim above the Lenora, and the extensive development work on both, have made Mount Sicker a very active camp and attracted attention to mining on the Pacific Coast. With the development of Mr. Dier's claim, however, and those owned by the B. C. & Mount Sicker Development Company and the Vancouver & Mount Sicker Syndicate, it is not unreasonable to hope that Mount Sicker will be a prize camp of British Columbia.

At the Mines.—News of the recent rich strikes on the Lenora and Tyee have attracted many visitors to the camp of late, but the number of people who would like to go through the workings of the mine would seriously interfere with mining operations if their wishes were acceded to, so that it has been found necessary to exclude all visitors from the workings unless they are in possession of properly signed passes.

Last week a party consisting of Elmore Dier, son of W. A. Dier, of Victoria; E. E. Smith, of Syracuse, N. Y.; A. Allayne Jones, of Vancouver, and A. E. Goodman, secured the necessary permission to inspect the Tyee and Lenora mines, and also casually inspected the camp, taking two days to the interesting task.

On reaching Westholme, on the E. & N. Railway, they were met by P. J. Pearson, the original locator of a great many claims on Mount Sicker. Mr. Pearson at once constituted himself the guide, philosopher and friend of the party, and was most kind and painstaking in this capacity. By good luck the party reached the terminus of the Lenora mine railway just as the Lenora ore train was about to start its seven-mile climb up Mount Sicker behind an ore car, which had immediately before been emptied of its 70 tons of copper ore destined for the Tacoma smelter. The party was instructed by the conductor in charge of the ore train to hang on anywhere, and with a warning screech the little engine pushed, puffed and fumed up the big hill to an elevation of over 100 feet from the starting point. The ride was somewhat thrilling to those unaccustomed to such trips, as the straining ore train almost continuously skirted the edge of the mighty canyon dividing Mount Sicker and Mount Brenton. Sometimes the car was at such an angle that a chunk of ore placed on the side would roll off, and the tenderfoot passengers were compelled to sit on the side of this oscillating vehicle, with their feet dangling over the precipice. If they looked below while rounding a sharp curve, the great tall firs skirting the Chemainus River looked like animated toothpicks moving in the mazes of some strange dance, while the river from that immense height appeared a silver thread in the mountains. If the passengers looked above the lofty snow-capped Brenton hills, their close proximity and immense height also caused an uncomfortable sen... tion almost approaching giddiness. To those u... accustomed to the hills it was out of the question ... shut their eyes, so they just stared at the appalli... immensity of nature at close range until they becam... accustomed to it. When half of the distance w... covered, they became sufficiently calm to stretch th... arms and legs by climbing in and out of the car a... lowering themselves on the narrow brakeman's pl... form. The thought occurred to everyone in t... party if the brakes had given way or become u... manageable, what a terrible ride they would ha... made to eternity.

Lenora as a Shipper—All breathed a sigh of rel... when the big ore dumps of the Lenora came in sig... Little talking was done on the trip, for one had to y... to be heard above the grinding, crunching sound ... the iron horse. But the following facts were glean... on the trip, or subsequently at the camp: T... Lenora is now shipping 70 tons a day. The ent... expense of securing the bullion from the ore is fr... $7 to $10 a ton. The ore shipped runs between $... and $35. Mr. Croft, the owner of the mine, is cle... ing about $1,000 a day. As a winner the Lenora ... a record. Ore was struck on the surface, and ... mine has paid from the grass-roots. One hund... and fifty thousand dollars has been taken from ... numerous stopes. Not one dollar was needed ... develop the mine. Owing to the richness of ... ore, the smelter advanced all the necessary funds, ... that the ore itself from the start has paid for the mi... has paid for running expenses and equipments, pa... for a wagon road—the Government subscribed $1,... towards this road—for a tram, now abandoned, to ... main track of the E. & N. Railway, and for the se... miles of railway. At Osborn Bay, on salt water ... Westholme, Mr. Croft has purchased a smelter ... for $6,500 and several adjoining farms, and has c... menced to lay out a townsite; so that at an early ... all the ore from the mine will be reduced to matt... this point.

For Smelter Site.—An option has been secu... by the Tyee people for a smelter site at Horse... Bay, also near Westholme, so that two matting pl... may be reducing Mount Sicker ore within the ... few months. The visiting party was convince... the truthfulness of many of these sayings after t... inspection of the mine. On arriving at the c... the party lost no time in presenting their credent... After eating a hasty dinner at the Lenora di... cabin, the visitors were taken in charge by Mr. ... ton. He showed them the greatest attention ... kindness, even providing them with suitable garm... for the dripping, slimy caverns underground. A... 2 o'clock in the afternoon the heads of the party ... appeared, one after another, down a great timb... hole in the side of the mountain, and did not a... bob up serenely from the lower shaft of the ... until one hour later. The party in the mean... had inspected eighteen corridors or stopes of ... mine. Superintendent Buxton was very reluct...

express his opinion as to the richness of the ore inspected and the future possibility of the mine, but was nevertheless more than patient in answering the numerous questions fired at him by the enthusiastic and greatly interested visitors in his charge. While every statement made by Mr. Buxton was demonstrated to be true to the satisfaction of those present, he advanced no theories, and would make no comments beyond what was necessary in showing the parties through the workings of the mine. In spite of this, the visitors were profoundly impressed with what they saw. Although many reports have been published as to the richness of the mine, actually seeing the ore was a revelation.

The Sylvanite Strike.—That the Lenora is rich is an accepted fact, but no one can realize the vast body of ore in sight until he has visited the mine and passed along the corridors, with ore rich in copper to the right of him, to the left of him, above his head and beneath his feet. It was with ever-increasing enthusiasm that the visitors climbed down sixteen flights of ladders, and at each stope examined the rich copper ore knocked off with Mr. Buxton's hammer every few feet of their progress. Ore, ore everywhere, and growing richer as they advanced towards the lower workings, until the visitors became dissatisfied with ordinary specimens running $25 per ton, and urged the Superintendent to take them to the part of the mine where the rich strike had been recently made. Mr. Buxton, however, was reticent regarding this strike, and it was only after repeated requests that the visitors were shown the spot.

The party first entered a shaft in the upper workings, where the ore was from 6 to 8 feet wide, but as ladder after ladder was descended, the dark, heavy dripping corridors widened out more and more, until several of the lower stopes measured over 40 feet in width. The formation of the ore body, as far as has been developed, is in the shape of an inverted wedge, which would appear to bear out the theory that the formation of the ore deposit in Mount Sicker widens out somewhat in the shape of an egg, runs into stringers, and again widens out into a mass of ore body. Each corridor visited was from 150 to 175 feet long and 6 feet 10 inches high, with substantial floors and ceilings of solid quartz between. Mr. Buxton would express no opinion as to the amount of ore in sight, but the above description at least gives some idea of the quantity now being stoped. Mr. Buxton being urged to tell something of the rich strike, he acknowledged that he had hit upon very highly mineralized ore about 50 feet from the surface in the lower tunnel.

That was some time ago. He had explored the vein, but after proving it to be three feet in width had done nothing further upon it. Now, however, that an extremely rich strike had been made on the Tyee, above them, also three feet wide, containing gray copper and sylvanite the same as the Lenora, the rich vein would be thoroughly explored, as the probabilities were that it was not a pocket but a continuous vein running through the Tyee and the Lenora. Mr. Buxton gave the visitors small specimens of this rich ore, on the understanding that they were to be simply kept as pocket specimens and not assayed. On the Superintendent being asked as to how rich the ore ran, he stated that it would average several hundred dollars, but specimens, of course, would run up into the thousands.

There are at present 60 miners engaged on the Lenora, besides some 40 ore sorters, as only the rich ore is shipped. According to Mr. Buxton, the ore thrown on the dump by sorters will average from $12 to $14 a ton, and there are 16,000 tons of it. This, of course, will all be treated by the Lenora smelter when in operation. Almost immediately on coming from the Lenora mine, a start was made down the mountain for the purpose of examining the claims recently acquired by Mr. Dier. Between the Lenora and the first of the Dier properties is the Key City claim, owned by Capt. Watson, of California. Capt. Watson is on the ground, and has done a large amount of work on his claim, and expects any day to strike the Lenora ledge. Capt. Watson shares the space between the Lenora and the Victoria with a small fraction of a claim known as the Alida. On the Victoria, Mr. Pearson, who was guiding the party, demonstrated by overcuts and outcroppings that the property, which he himself located six years ago, contained the same ledges as the Lenora. He went to elaborate pains to show that the bleached out, brown capping was identical with that found on the mountain top, running through the Tyee and on the Lenora, and that the different grades of ore uncovered were the same as the Lenora ore.

Down Copper Canyon.—From the Victoria the parties slid or walked down the Copper Canyon claim, 1,500 feet further, to the Chemainus river, where the river had cut the ore body in two. Tunnels had been driven in on both sides of the stream, disclosing a fine body of ore. In the words of Mr. Pearson, "The discovery of that Lenora ledge by Harry Watson made Mount Sicker. I was induced to look below at that time, about six years ago, and I found the Lenora ledge down here, and it runs clean through the Victoria and Copper Canyon claims, 3,000 feet without a break, and so on across the stream and up Mount Brenton to Mr. Dier's other claim, the Susan, also located by myself." After crossing the river, the visitors were shown many outcroppings which went to prove Mr. Pearson's assertion. On the Susan claim the development work thus far points to the same conclusion, for following this lead claims have been staked far up the side of Mount Brenton and on the other slope. At the river side the party camped for the night, and were royally entertained by good substantial refreshments, camp-fire anecdotes, and the thrilling personal experiences of miners working on the Dier properties, actual happenings in their perilous callings. Next morning the mountain was climbed again to the very top, and the now famous Tyee mine visited. The Tyee was located about six

years ago by a prospector with a theory. His theory was that if the Lenora had the ledge below, there must be a commencement somewhere above. The claim was staked and subsequently sold to the Tyee Copper Company, of London. Two shafts were sunk; the first did not hit the vein, the second did. Down this narrow dark hole the visitors were swirled, one at a time, in a bucket operated by an engine. It was a 200-foot drop. That was one mode of travelling that the visitors did not get used to; they preferred going down the shaft by ladders, as in the Lenora. However, they trusted themselves to the kind offices of Mr. Musgrave, the Superintendent in charge, and he brought them through the ordeal without a hitch, Mr. Musgrave very considerately explaining that when the chain slipped on the cog and the bucket dropped a bit, they must not think they were going bang to the bottom.

The working of the Tyee mine proved to be very interesting, but the exploration of the uplifts was a rather nervous work for a green hand, but it was in these uplifts that the great body of ore was discovered. There are three of them, one 175 feet, one 150 feet, and a third about 50 feet. These uplifts had to be reached up a narrow perpendicular ladder, and the party had to go up one at a time. Once wedged into that black pocket, with one foot on a narrow board and the other on the ladder, one had to wait a bit to get over a momentary dismal, lonely feeling, before examining the ore with a lighted candle; but there was ore, sure enough, rich and in immense quantities.

The vein has been proved eight feet, with neither wall reached, and Mr. Musgrave very justly claims that he has reason to believe that by these uplifts they have proved that they have ore 170 feet in depth and some 390 feet in length, or reaching to the upper workings of the Lenora, where it is continued as the Lenora ledge. Mr. Musgrave states that smelter tests have proved that the Tyee ledge contains the same rich ore as is found in the Lenora. The Tyee Company has decided to block out ore for the next two years before it commences to treat it extensively by its own matting plant. Mr. Musgrave was enthusiastic over the rich strike of gray copper ore found in the Tyee. He took some time in showing the visitors the rich deposit and explaining how it had been discovered. Mr. Musgrave said he saw the men working in the mine passing round the half of a big lump of ore they had split in the middle. He said: "What have you got there boys?" The chunk was passed to him, and the sight of it fairly took his breath away. It was gray copper ore splattered with sylvanite, and in the centre was a yellow knob of something sticking out of the quartz, about the size and shape of an acorn. He could not believe it was gold, but he took out his kn and it cut it like putty. Sure enough it was pure d, and he did not know how far it went into t quartz. The specimen was shipped as it was to England, and was not assayed. Another specimen, however, which was assayed went $630 in gold, 696 ounces of silver, and 14 per cent. copper. Mr. Musgrave is goin right on developing this vein and blasting the ore ou in sacks, to save every precious ounce that falls fro the walls.

The party, desiring to catch the train, hurried u through the split in the earth to the outside work again, after a twenty minutes' inspection of th mine, and were soon again dangling in the ore car o a flying trip down the mountain to Westholme, an thence by the E. & N. to Victoria.

The account of the trip to Mount Sicker woul not be complete without mentioning the numerou other claims that are being developed by the Co pany. The Anoka, also acquired by Mr. Dier fro Mr. Pierson, has an excellent showing, containing th same sort of mineral as the Lenora and Tyee, a two and a half miles distant in a westerly directio The property has three ledges, in which some 50 100 feet of work has been done on this. The St and the May, also acquired by Mr. Dier from M Pearson, lie about three-quarters of a mile up Ano Creek. These properties have been opened up f enough to expose a large ore body, which the own is satisfied is a continuous true fissure vein. T Queen Bee, the Nome, the Georgia Fraction, and t York, on Mount Sicker, and the Lord Roberts, Richards Mountain, are owned by the Vancouver Mount Sicker Syndicate.

The Queen Bee contains the same ore formati as the Lenora. There are 150 feet of crosscuts a driftings, and two shafts, 82 feet and 50 feet. Th have ore 22 feet wide, the same as the Seattle, wh vein undoubtedly runs in through the Queen B The Georgia Fraction, York and Nome have splen surface showings. The Lord Roberts is in the sa belt, two miles from Marble Bay, east of the Leno The Company has a 22-horse-power boiler install with steam drill and hoist. The shaft is 55 feet de with 50 feet of crosscut. They expect to uncove valuable ore body at 150 feet. Ore has been tak out of the shaft running $30. They are now goi through the capping, 200 feet wide, and the chutes on both sides. Work is being pushed as f as possible.

The Bell, Little Nugget, Seattle and Dunsm are owned by the British Columbia & Mount Sic Development Company. Valuable ore has b struck on the Bell and Seattle, and good results h followed the assessment work on the others. Ore been struck on the Daisy, the furthest claim f Mount Richards and owned by Mr. Croft, so min has been got along the entire belt over three mo tains—across Mount Brenton, over Mount Sicker Mount Richards to within six miles of salt water.

No statistics have been given, to speak of, in rambling account of a trip to Mount Sicker. simply the impressions recorded of a party of f all of whom went to Mount Sicker to judge for th selves according to their own lights what crede they could place in the sensational stories publi

COPPER CANYON TUNNEL.

CHEMAINUS RIVER AT COPPER CANYON.

P. J. PEARSON.

of the great mineral ore bodies of that camp; and they came back with the belief that the half or the quarter had not been told, and the conviction that whatever might be written would convey to the public a very imperfect idea of what was really being done in the way of development, of the richness of the mineral deposits, and the possibilities of the Mount Sicker mining camp.

BOARD OF TRADE EXCURSION.

Victoria Business Men Pay Visit to the Mount Sicker Mines—Amazed and Delighted With Extent and Richness of the Lenora.

[Victoria Daily Colonist, May 19, 1901.]

Yesterday's business men's excursion, under the auspices of the British Columbia Board of Trade, was a decided success. It was taken advantage of by about fifty representative men of affairs, who thoroughly enjoyed the outing, besides gaining some valuable knowledge, from personal observation, which many pages of print would fail to convey. The itinerary of the party was:

Leave Victoria at 7 a. m. by an E. & N. special train; breakfast at Strathcona Hotel, Shawnigan Lake; stage from Duncan's or Westholme to Mount Sicker to visit the mines, while those who wished might go on to Chemainus and thence via the Victoria Lumbering & Manufacturing Company's railway to the logging camps. Few availed themselves of the latter alternative, as a large majority preferred visiting the mines.

On arrival at Duncan's that flourishing little town appeared to be en fete. A crowd of Indians, attired in their holiday best and bearing flags and streamers, were assembled at the station, their usually stolid features lighted up with an expression of pleasant anticipation. Some few egotists of the excursion party thought the parade was in their honor, but on enquiry it was learned that the assemblage awaited the arrival of Rev. Bishop Orth, who was expected by the regular train. His Lordship will to-day consecrate the Church of St. Ann, recently erected in the town.

At Duncans several of the party took stage to Mount Sicker, while the remainder proceeded by train to Westholme, where the regular stage and several extra vehicles were in waiting. A favored few, amongst whom was a representative of the Colonist, were permitted to travel to the mines on the Mount Sicker railway. The train consisted of a locomotive and an ore car, not an inviting looking conveyance, but desirable on account of its greater speed than the wagons. The M. S. railway is just seven miles long, but it climbs 1,200 feet between the E. & N. line and the Lenora mine, and a trip over it is most interesting and exciting. The road-bed is as nearly perfect as possible, and exhibits some daring feats of engineering, creditable to the skill of Mr. Henry Croft, C. E., and Mr. MacLellan, the veteran contractor, who executed the work. It should be mentioned here that a small party, led by ex-Mayor Redfern, made the toilsome journey up the long incline on foot, and arrived at the mines fresh as daisies, and deservedly proud of their achievement.

As the various contingents arrived at Mount Sicker camp, they were welcomed by Mr. Croft and invited to the boarding house, where a capital luncheon was served and highly appreciated, for the mountain air lends a keen edge to one's appetite. The only incident of the trip up the mountain was a heavy hail storm, which pelted the visitors for 15 minutes, but failed to dampen their spirits. The two ladies of the party endured this discomfort with admirable fortitude and cheerfulness.

After luncheon the tunnels and underground workings of the Lenora mine were visited, Mr. Croft and Superintendent Buxton acting as guides and mentors. A description of these appeared in the Colonist of last Sunday, so it need only be said that all were surprised and delighted with their trip into this great treasure house of nature. The Tyee mine was also visited; and the ore dumps, sawmills, engine house and other interesting features of the Lenora camp inspected—the immense ore dump, 16,000 tons of $12 ore eliciting much surprised comment.

While the visitors were being shown the wonders of the Lenora, a couple of newspaper men went off on a private quest. They had heard something about the Copper Canyon group, and wished to verify some of the things that had been said about it. Guided by the owner of the property, Mr. W. A. Dier, they descended Mount Sicker to the Chemainus River, tracing on the way the outcroppings of the Lenora ledges. On reaching the bottom of the canyon, Mr. Dier pointed out to them where these same ledges outcrop again on either side of the river, plainly and undoubtedly. The importance of this fact can be realized when it is stated that the main tunnel of the Copper Canyon, now in 120 feet, begins on the river bank 900 feet below the level of the lower tunnel of the Lenora! The advantage is obvious. It is that nature has sunk a gigantic shaft right in the middle of the property, which will enable the operators to start drifting, stoping and crosscutting at a depth which under ordinary conditions it would take them months to reach, at enormous cost. Another important fact is that the Lenora veins have widened with depth, in one instance from three feet to forty feet, and it is reasonable to suppose that their continuations will hold to the same rule.

The Copper Canyon group consists of seven claims—the Victoria, Copper Canyon, Susan and two fractions, partly on Mount Sicker and partly on Mount Brenton, direct continuations of the Lenora; the Anoka, May and Star, on Mount Brenton; and the Yanker, which immediately adjoins the Tyee to the east. The first three mentioned are traversed for their whole length by three parallel veins, which are undoubtedly the same as those being so successfully

developed on the Lenora. The distance between the outside walls is only about 140 feet, so it is probable, according to expert opinion, that all three will merge in one immense lode with depth. Several open cuts and three tunnels demonstrate that these veins are richly mineralized-- average assays, made by different persons, giving $28 per ton, while picked specimens show values well up in the hundreds. The veins are so located that they can be worked to great advantage at a minimum of cost, for their proximity to the magnificent water power afforded by the Chemainus River will enable the management to instal an electric plant, which will not only furnish power for the Copper Canyon, but should become a source of profit by selling power to the neighboring mines. The Lenora, under the able management of Mr. Croft, is shipping 70 tons daily to the smelter. The smelter returns for March were 11,867 tons, value $175,832.42; and the Victoria and Copper Canyon, if actively developed, will within three months produce more ore daily than the Lenora is now handling. The Copper Canyon group has been examined and reported on by Mr. Pellew-Harvey, Mr. Bromley and Mr. Henry Croft, all mining engineers of established reputation, and they are unanimous in expressing the most favorable opinions of its possibilities. The visit to the property was most interesting, and convinced the visitors that the Lenora will soon be only one of several shipping mines on Mounts Sicker and Brenton.

Returning to the Lenora, the main party were found assembled in Mr Croft's office, whither he had invited them to accept [illegible]ting proof of his hospitality. Mr. D. R. Ker [illegible]aked Mr. Croft, on behalf of the visitors, for his courtesy and kindness, and expressed the surprise and gratification of all at having seen for themselves the marvellously rich ore bodies exposed in the tunnels and drifts of the Lenora mine. He concluded by proposing the health and prosperity of Mr. Croft, which was enthusiastically drunk.

Mr. Croft replied in a few felicitous expressions of goodwill, and expressed the satisfaction he felt at such a number of Victoria's business men visiting the mine and learning that they had mining properties near home equal to anything in the province.

The party then returned to Westholme, where the train picked them up and made good time to Victoria, which was reached at 8 p. m.

The visitors all expressed themselves delighted with the day's experiences. On the train nothing was heard but praise for Mr. Croft and admiration of his mine.

Mr. D. R. Ker, who has visited nearly every mine of importance in the interior, said he had never seen any property, at the same stage of development, equal to the Lenora. Le Roi and others were shipping more ore, but they were much older mines, and the average of the ore shipped was far below that of the Lenora. He was much pleased that Victoria h[illegible] such a mine almost in her suburbs, and felt sure, when the score or more prospects on Mo Sicker and Mount Brenton became shippers, this would grow in wealth and importance at a rapid r Spokane had sprung from nothing to its present enable position through the development of the Re land mines, which had also built up Rossland. W should not Victoria profit in a like degree from magnificent mining belt contiguous to her ? T fact that a mine like the Lenora was within 50 mi of Victoria, and only six miles from tide-water, ad 25 per cent. to its value. Where interior mines to spend a large percentage of their earnings on tra portation of machinery, supplies and ore shipmen the Lenora and the other mines which were sure to opened could run their ores down to the sea, and, w cheap coal in abundance, smelt them to the very h advantage.

Mr. Alex. Wilson paid a high tribute to Croft's pluck and enterpri e, and declared his delig with all he had seen. It was wonderful, and sooner Victoria realized what nature had placed her doors, the better for the city. There was longer any doubt in his mind that Vancouver Isla could hold its own with any mining district of Province.

Mr. A. B. Fraser said he was amazed at the ric ness of the Lenora. It was very gratifying to real that Victoria had such a splendid property tributa to her. He hoped the press and people would un in promoting the mining interests of Vancouv Island, which he now felt convinced could not be s passed by any on the continent of North America.

Mr. Jameson, who knows the interior pret thoroughly, said that in all his experience he h never seen a more promising mine than the Leno and, with the exception of the Arlington, he h never seen a richer.

Ex-Mayor Redfern spoke enthusiastically of mine. He could scarcely credit his eyes when he s the immense bodies of ore blocked out in the wo ings. The possibilities seemed to him illimitab Victoria would have herself to blame if she did n become a great and wealthy mining centre.

Mr. William Wilson also expressed his gratifi tion with the wonders which had been revealed him. He had no doubt that the Lenora would pro a great benefit to the city, and as other mines we opened its trade should gain a new impetus. T mining resources of the Island had been neglected the past, but he hoped the object lesson of the Leno would stimulate their development.

Others of the party expressed themselves similar terms, and all agreed that the trip had be the most interesting and instructive of Board Trade excursions.

The members of the excursion party who visit Chemainus were received by Mr. E. J. Palmer, t genial and accommodating manager of the Victo

Lumber & Manufacturing Company, who had made the necessary preparations to show the visitors through the scene of the Company's operations. After luncheon with Capt. Gibson, the party boarded the logging train and travelled a distance of nine miles to where the Company's cars were being loaded, and the party saw how the logs were hauled out of the woods by machinery and loaded on to the cars. Mr. Palmer has taken charge of the Company's logging operations, and for this purpose has built a new skid road, and when operations are taking place 600 feet on each side of the road amongst the magnificent timber, some dozen logs or so will be easily hauled down this road. On the return home, six cars loaded with splendid sticks preceded the visitors' car. It is understood that this company spends at least $25,000 monthly.

MOUNT SICKER.

[Leading Article From Victoria Daily Times, May 20, 1901.]

The skeptics who doubted that any good thing in the shape of wealth could come out of the districts surrounding Victoria are said to have been almost persuaded to a contrary opinion by their visit to the Mountain of Promise on Saturday. What a short time ago was a barren, bleak waste has been suddenly transferred into a populous, thriving district. A railway as substantial as a transcontinental road, tramways and works of various kinds, and almost all the conveniences which follow in the train of civilization of the highest form, have risen as by magic in the wilderness, with a suddenness which is surprising even in this land of transformations. And it has all been brought about, or very nearly all, by the knowledge, faith and determination of one man. Mr. Croft, if he has not already reaped his reward, has at least reached the summit, and is now gazing down upon the land of promise.

And yet a beginning has only been made in the cultivation of the latent possibilities of Mount Sicker. When his internal economy has been thoroughly investigated and the secret places of his wealth have been examined into and turned into the ore wagon, and these in turn have been dumped into the smelters, which will surely rise almost within the shadow of the mountain, then the experts, whose predictions have so far been fulfilled to the letter, say we shall begin to understand the significance to the surrounding country of the operations which have commenced around this mound of treasure.

We have no hesitation in saying that the developments around one district such as Mount Sicker are of vastly greater benefit to Victoria than the securing of the elusive "railway connection" which appears to have been the summit of our ambition for so many years. Railway connection is a good thing in its way, and not to be despised by any means. Given a few more camps like Mount Sicker around Victoria, and we shall soon have as effective railway connection as any place on the continent, with water communication in addition to add to our independence.

PLA

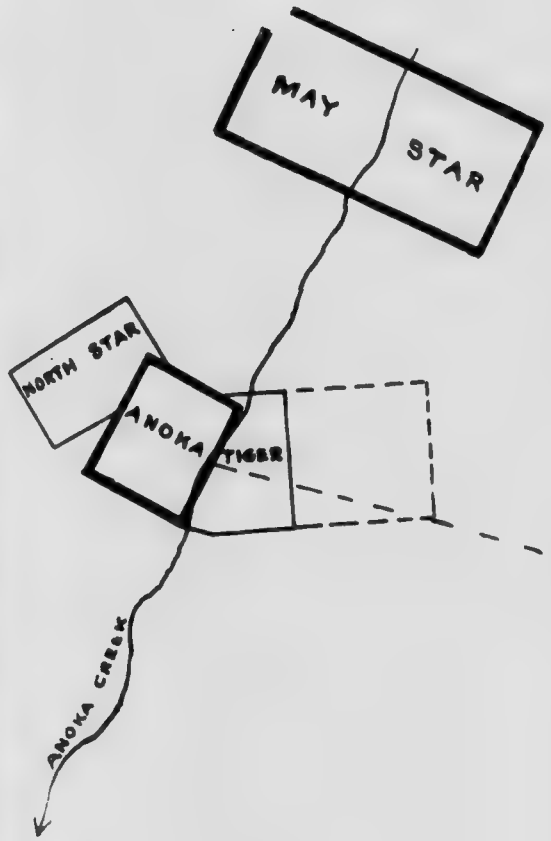
OF

MOUNT BRE

MOUNT SICKER

VANCOUVER

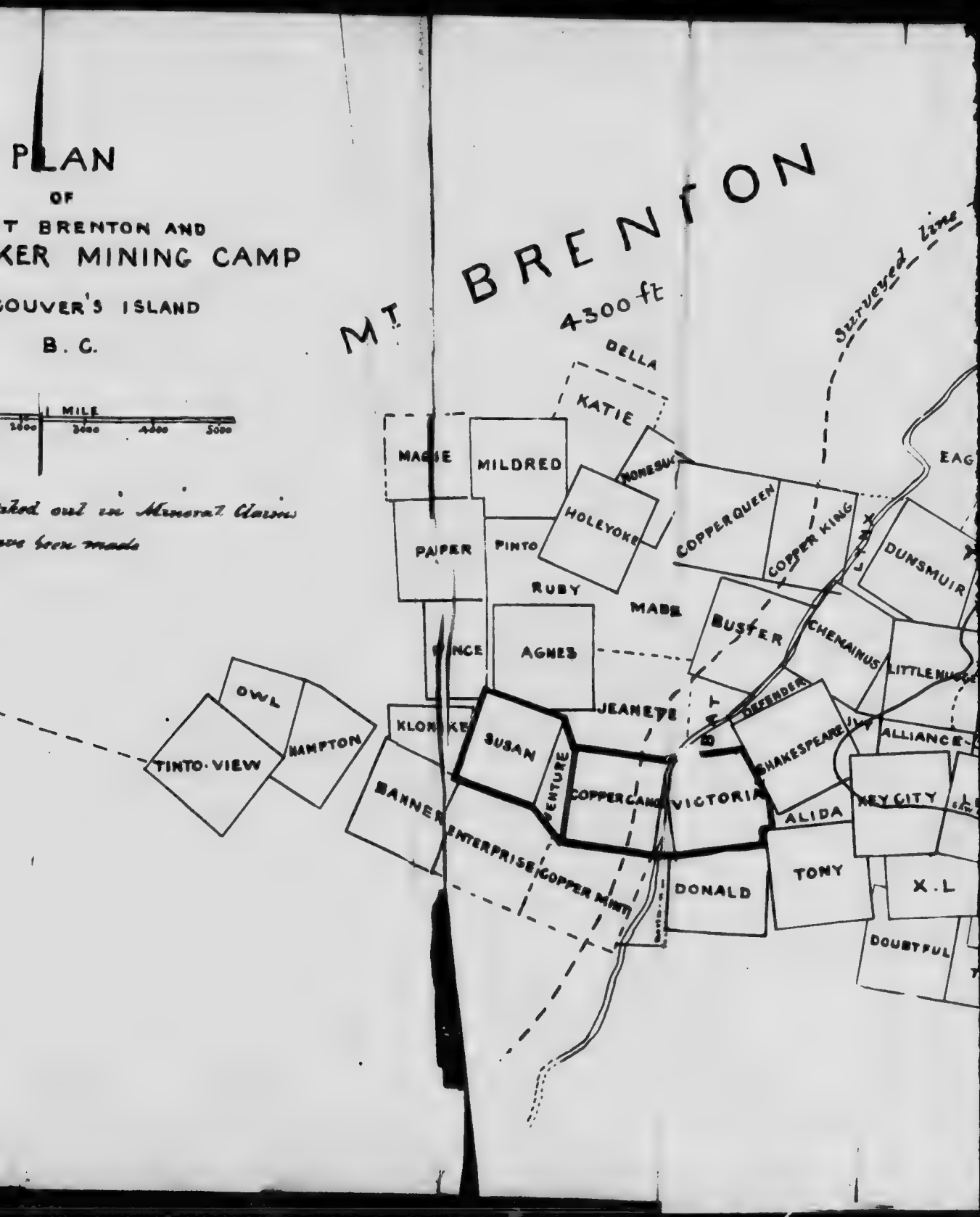
B.

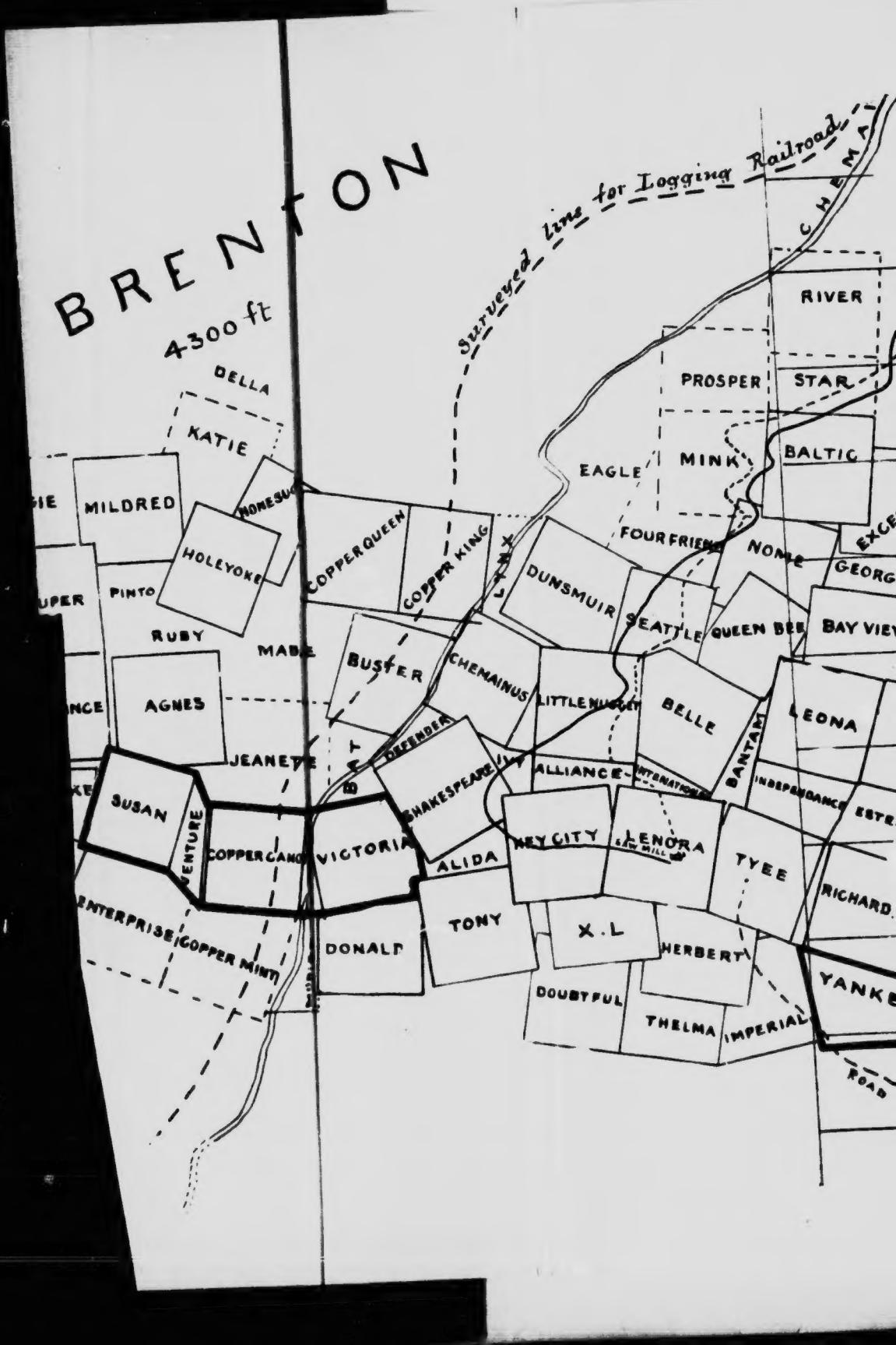


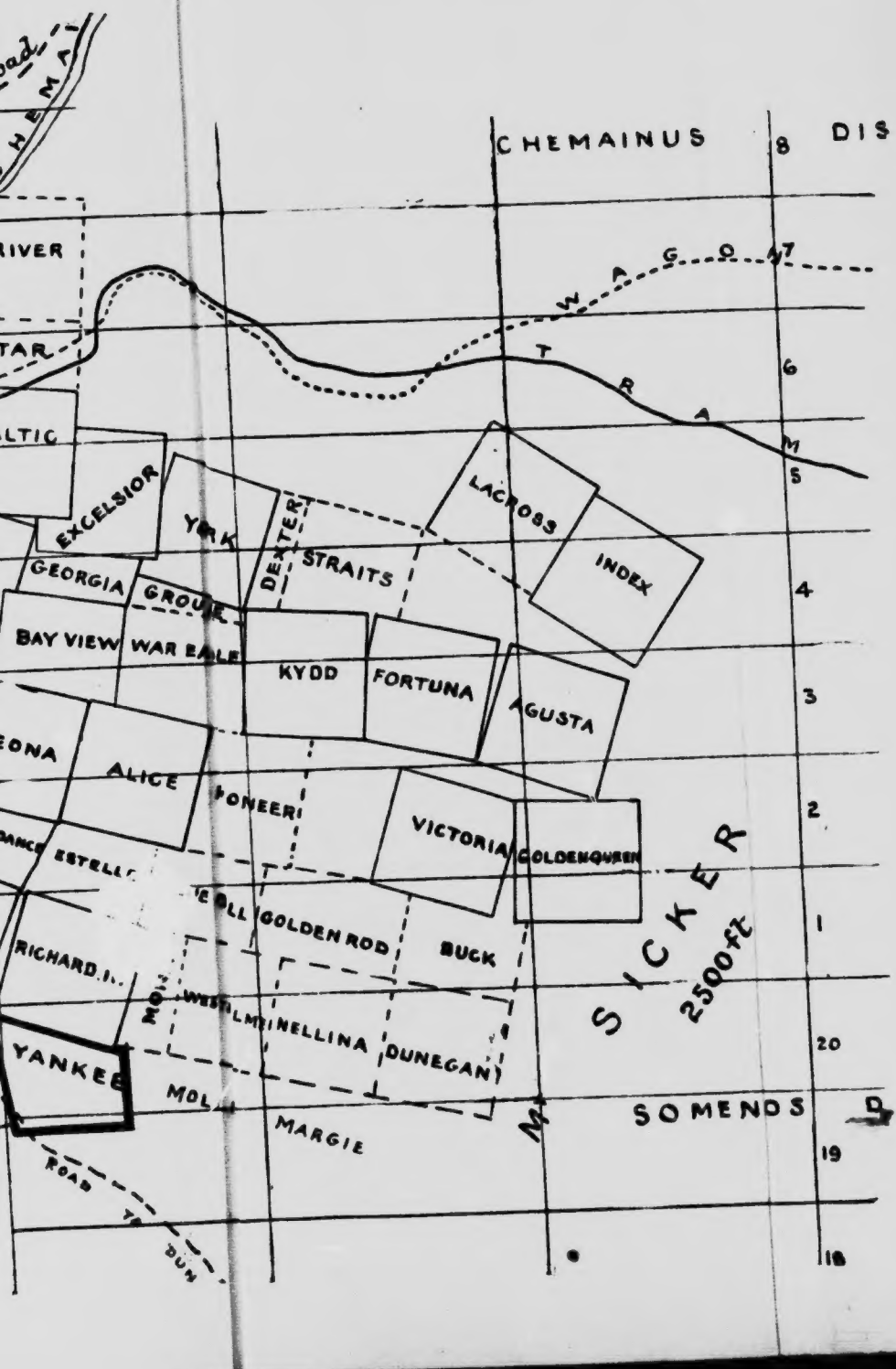
Compiled by Monty Fry P.L.S.

0 1000 2000

This land is all staked out
but no surveys have been


PLAN
OF
T BRENTON AND
KER MINING CAMP
OUVER'S ISLAND
B. C.
1 MILE
2000 3000 4000 5000
aked out in Mineral Claims
ve been made
MT. BRENTON
4300 ft
Surveyed line
DELLA
KATIE
MAGGIE
MILDRED
MORNING STAR
HOLEYOKE
COPPER QUEEN
COPPER KING
DUNSMUIR
PAIPER
PINTO
RUBY
MABEL
BUSTER
CHENAINUS
LITTLE NUGGET
PRINCE
AGNES
JEANETTE
DEFENDER
OWL
HAMPTON
TINTO VIEW
KLONDIKE
SUSAN
VENTURE
COPPER CANYON
VICTORIA
SHAKESPEARE
ALLIANCE
BANNER
ENTERPRISE
COPPER MINE
ALIDA
KEY CITY
DONALD
TONY
X.L
DOUBTFUL


BRENTON
4300 ft
Surveyed line for Logging Railroad
CHEMA
RIVER
PROSPER
STAR
BALTIC
EAGLE
MINK
FOUR FRIENDS
NONPAREIL
DELLA
KATIE
MILDRED
HOLEYOKE
COPPER QUEEN
COPPER KING
DUNSMUIR
SEATTLE
QUEEN BEE
BAY VIEW
PINTO
RUBY
MABEL
BUSTER
CHEMAINUS
LITTLE NUGGET
BELLE
LEONA
AGNES
JEANETTE
DEFENDER
SHAKESPEARE
ALLIANCE
BANTAM
INDEPENDANCE
SUSAN
VENTURE
COPPER CANOE
VICTORIA
ALIDA
KEY CITY
LENORA
TYEE
RICHARD
ENTERPRISE
COPPER MINT
DONALD
TONY
X.L
HERBERT
DOUBTFUL
THELMA
IMPERIAL
YANKEE
ROAD


CHEMAINUS
DIS
RIVER
TAR
LTIC
EXCELSIOR
YORK
DEXTER
STRAITS
LACROSS
INDEX
GEORGIA
GROUSE
BAY VIEW
WAR EAGLE
KYDD
FORTUNA
AGUSTA
ALICE
VICTORIA
GOLDENQUEEN
RICHARD III
GOLDEN ROD
BUCK
WESTLME
NELLINA
DUNEGAN
YANKEE
MOL
MARGIE
SOMENDS
SICKER
2500ft
8
6
5
4
3
2
1
20
19
18

SHOWING MTS. SICKER AND BRENTON IN DISTANCE.

Photo Engraving by B. C. Photo Engraving Co.